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Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 s
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Maximum DB seq length: 200000000
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Perfect score:
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A Geneseq 101002:*

1: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA1980.DAT:*
2: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA1981.DAT:*
3: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA1982.DAT:*
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12: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA1997.DAT:*
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19: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA1997.DAT:*
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         908470 seqs, 133250620 residues
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70
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Copyright (c) 1993 - 2003 Compugen Ltd.
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

ب										Result No.
0 53	9 53	9 53	7 53	6 53	5 53.5	4 53.5	3 53.5	2 53.5	1 66	ι O
75.7	75.7	75.7	75.7						94.3	:
28		28								
23	22	22				22	22	22		
AAE19032	AAB60530	AAB60509	AAB60508	AAG64943	AAB60517	AAB60516	AAB60515	AAB60514	AAU76321	ID
Human ghrelin pept	Dog ghrelin-like G	Human ghrelin, SEO	Rat chrelin, SEO I	Neurone denaturati	Human des-Gln14-gh	Rat des-Gln14-ghre	Human des-Gln14-gh	Rat des-Gln14-ghre	Synthetic Ghrelin	Description

45	44	43					38		36			33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18		16		14	13	12	11
44	49			49		49			49			49			49		4	49.5	•	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53
	0	70.0	•		.0	٠		70.0		•	•	70.0	•	70.0	70.0	•		70.7	70.7	75.7	75.7	75.7	75.7	75.7	75.7	75.7	75.7	75.7	75.7	75.7	75.7	75.7	75.7	75.7
23	118	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	117	27	126	118	118	118	117	117	117	117	117	117	117	117	117	90	28
22	22	23	23	23	23	23	23	23	23	23	23	23	23	23	23	22	22	22	22	22	22	22	21	23	23	22	22	22	22	22	21	20	23	23
AAB60528	AAB60520	AAE19040	AAE19039	AAE19038	AAE19037	AAE19036	AAE19035	AAE19034	AAE19033	AAE19031	AAE19030	AAE19029	AAE19028	AAE19027	AAE19021	AAB60560	AAB60518	AAB60521	AAB60519	AAM40676	AAB65231	AAU12392	AAY66708	AAE15883	AAE23838	AAB60511	AAB60510	AAB20101	AAB62649	AAM38890	AAY87236	AAW87991	ABP08975	AAE19041
trout 23a		hrelin	lin	ghrelin	Human ghrelin pept	elin-deriv	Porcine ghrelin, S		Porcine des-Gln14-	polypept	Human PRO1066 (UNQ	Human PRO1066 poly	Membrane-bound pro	Human zsig33 prote	Human zsig33 prote	Human ghrelin prep	문	ũ.	N	Human polypeptide	Human signal pepti	Protein designated	Human ÖRFX protein	Human ghrelin pept										

### ALIGNMENTS

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RESULT 1
AAU76321
ID AAU7
Ghrelin; antagonist; growth hormone release; octanoyl ester; tumour; acromegaly; osteopathic.
WPI; 2002-206079/26.
                                                                                                                                  Key
Modified-site
                                                                                                                                                           Synthetic.
                                                                                                                                                                                                    Synthetic Ghrelin variant #3.
                                                                                                                                                                                                                     21-MAY-2002 (first entry)
                                                                                                                                                                                                                                      AAU76321;
                                                                                                                                                                                                                                                     AAU76321 standard; peptide; 14 AA.
               Deghenghi R;
                                                24-JUL-2000; 2000US-220178P
                                                                 10-JUL-2001; 2001WO-EP07929
                                                                                 31-JAN-2002.
                                                                                                 WO200208250-A2
                                 (ZENT-) ZENTARIS AG
                                                                                                                                           Location/Qualifiers
                                                                                                                /label= OTHER
/note= "Other= Octanoyl Ser"
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RESULT 2
AAB60514
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Best Local S
Matches 13
                                                                                                                              New peptide compounds which induce g elevate cell calcium concentrations,
                 also encompasses
                                        characterised
                                                                           The invention
                                                                                                                      of infant growth disorders
                                                                                                  Claim
                                                                                                                                                                   WPI; 2001-159704/16
                                                                                                                                                                                           Kangawa K,
                                                                                                                                                                                                                                       26-APR-2000; 2000JP-0126623
                                                                                                                                                                                                                                                                                     24-JUL-2000; 2000WO-JP04907
                                                                                                                                                                                                                                                                                                                                     W0200107475-A1
                                                                                                                                                                                                                                                                                                                                                                                                     Growth hormone secretagogue;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The invention relates to a novel peptide which antagonises the effect of ghrelins when administered to a mammal. The peptide is a synthetic analogue of phrelin. Ghrelin is a 27-28 residue peptide isolated from distinctive cell types in the stomach of rate and humans and has an octancyl ester attached to a serine residue. Ghrelin is a potent releaser of growth hormone. The peptides are useful for normalising elevated growth hormone levels in mammals such as those suffering from a tumour related to overproduction of growth hormone or acromegaly. The present sequence is a ghrelin antagonising peptide of the
                                                                                                                                                                                                                  (KANG/) KANGAWA K.
                                                                                                                                                                                                                                                               23-JUL-1999;
                                                                                                                                                                                                                                                                                                                                                         Rattus norvegicus.
                                                                                                                                                                                                                                                                                                                                                                                               calcium
                                                                                                                                                                                                                                                                                                                                                                                                                           Rat des-Gln14-ghrelin, SEQ ID NO:10
                                                                                                                                                                                                                                                                                                                                                                                                                                                     24-APR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAB60514 standard; peptide;
                            modified amino
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               peptide which antagonises mammal -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GSSFLSPEAKLOPR 14
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3; Page
                                                                                                                                                                                                                                                                                                                                                                                 hormone
                                                                 the
                                                                                                                                                                                                                                                                                                                                                                                         concentration elevation; infant gr
                                                                                                Page
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
on relates to a novel peptide compound or its salt which secretion of growth hormone and/or elevates calcium ion on in cells. The peptides are ghrelin homologues and are ed in that at least one amino acid has been substituted by amino acid and/or a non-amino acid compound. The invention asses the unmodified peptides; the DNA encoding the peptide host cells comprising such DNA; a method of producing the
                                                                                                                                                                                          Kojima
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                              185; 210pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
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99JP-0338841
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                                                                                                                                                                                          Hosoda
                                                                                              Japanese
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                                                                                                                                                                                     H,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 66;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        the
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                                                                                                                                                                                          Matsuo
                                                                                                                              growth hormone
s, useful in tre
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       effect of
                                                                                                                                                                                                                                                                                                                                                                                         growth disorder;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 23;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ghrelins when administered
                                                                                                                                                                                       Minamitake
                                                                                                                              treatment
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                                                                                                                            secretion
eatment and
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                                                                                                                            and
diagnosis
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           peptides;
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RESULT 3
AAB60515
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Matches
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      The invention relates to a novel peptide compound or its salt which induces the secretion of growth hormone and/or elevates calcium ion concentration in cells. The peptides are ghrelin homologues and are characterised in that at least one amino acid has been substituted by a modified amino acid and/or a non-amino acid compound. The invention also encompasses the unmodified peptides; the DNA encoding the peptides, vectors and host cells comprising such DNA; a method of producing the peptides comprising recombinant production, optionally followed by chemical modification; an antibody specific for a peptide of the invention; and an assay and kit for detecting the peptides. The peptides caused by a deficiency in growth hormone expression or activity. In particular, they are useful for promoting infant growth due to growth hormone expression or activity. In
                                                                                                                                                                                                                                                            New peptide compounds which induce growth elevate cell calcium concentrations, usefu
                                                                                                                                                                                                                                                                                                                                                                                            23-JUL-1999; 99JP-0210002
29-NOV-1999; 99JP-0338841
26-APR-2000; 2000JP-0126623
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             peptides comprising recombinant production, optionally followed by chemical modification; an antibody specific for a peptide of the invention; and an assay and kit for detecting the peptides. The pept of the invention are useful for treating and/or diagnosing diseases caused by a deficiency in growth hormone expression or activity. In particular, they are useful for promoting infant growth due to growth hormone deficiency. The compounds of the invention are safe with no accompanying side effects. The present sequence represents a ghrelin-type growth hormone secretagogue (GHS) of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                     24-JUL-2000; 2000WO-JP04907
                                                                                                                                                                                                                                                                                                                                                                    (KANG/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-FEB-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO200107475-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        growth hormone deficiency.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        calcium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human des-Gln14-ghrelin,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             24-APR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAB60515 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
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                                                                                                                                                                                                                                                                                                                                                                  KANGAWA K
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 concentration elevation;
                                                                                                                                                                                                                      Page 185;
                                                                                                                                                                                                                                                growth
                                                                                                                                                                                                                                                                                                                                       Kojima
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            27 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                disorders
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                                                                                                                                                                                                                 210pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              76.4%;
51.9%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQ
for promoting infant growth due to growth pounds of the invention are safe with
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Pred. No. 0.03
0; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  infant growth disorder;
                                                                                                                                                                                                                                                                                                                                     Matsuo
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                                                                                                                                                                                                                                                             useful
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                                                                                                                                                                                                                                                          and
diagnosis
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compounds

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RESULT 4
AAB60516
CC concentration in cells. The peptides are ghrelin bomologues and are characterised in that at least one amino acid has been substituted by CC a modified amino acid and/or a non-amino acid compound. The invention CC also encompasses the unmodified peptides; the DNA encoding the peptides; centers and host cells comprising such DNA; a method of producing the peptides; chemical modification; an antibody specific for a peptide of the CC invention; and an assay and kit for detecting the peptides. The peptides CC of the invention are useful for treating and/or diagnosing diseases CC caused by a deficiency in growth hormone expression or activity. In CC particular, they are useful for promoting infant growth due to growth CC invence deficiency. The compounds of the invention are safe with CC no accompanying side effects. The present sequence represents a CC of the invention. The compounds of the invention are safe with CC on accompanying side effects. The present sequence represents a CC of the invention.
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                                                                                                                                                                                                                                                                                                                                                          New peptide compounds which induce growth hormone secretion elevate cell calcium concentrations, useful in treatment and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             23-JUL-1999; 99JP-0210002
29-NOV-1999; 99JP-0338841
26-APR-2000; 2000JP-0126623
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       growth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Growth hormone secretagogue; GHS; ghrelin; precursor; preproprotein; calcium concentration elevation; infant growth disorder;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   no accompanying side effects. The present sequence represents a ghrelin-type growth hormone secretagogue (GHS) of the invention
                                                                                                                                                                                                                                                             The invention relates to a novel peptide compound or its salt which induces the secretion of growth hormone and/or elevates calcium ion
                                                                                                                                                                                                                                                                                                            Claim 3; Page 186; 210pp; Japanese
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              24-JUL-2000; 2000WO-JP04907
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Rattus norvegicus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Rat des-Gln14-ghrelin preproprotein,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     24-APR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Kangawa K, Kojima M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (KANG/) KANGAWA K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAB60516;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     hormone deficiency.
                                                                                                                                                                                                                                                                                                                                                                                                         AAF59646.
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                                                                                                                                                                                                                                                                                                                                         growth disorders
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116 AA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Protein; 116
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51.9%;
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Pred. No. 0
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                                                                                                                                                                                                                                                                                                                                                      diagnosis
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RESULT 5
AAB60517
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                                                                                          The invention relates to a novel peptide compound or its salt which CC induces the secretion of growth hormone and/or elevates calcium ion concentration in cells. The peptides are ghrelin homologues and are concentration in cells. The peptides are ghrelin homologues and are CC characterised in that at least one amino acid has been substituted by a lso encompasses the unmodified peptides; the DNA encoding the peptides; cretors and host cells comprising such DNA; a method of producing the peptides comprising recombinant production, optionally followed by chemical modification; an antibody specific for a peptide of the invention; and an assay and kit for detecting the peptides. The peptides of the invention are useful for treating and/or diagnosing diseases co fits invention are useful for promoting infant growth due to growth CC caused by a deficiency in growth hormone expression or activity. In CC particular, they are useful for promoting infant growth due to growth CC no accompanying side effects. The present sequence represents a ghrelin-type growth hormone secretagogue (GHS) precursor protein
Query Match
Best Local S
Matches 14
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Best Local S
Matches 14
                                                                                   ghrelin-type growth of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Growth hormone secretagogue; GHS; ghrelin; precursor; preproprotein; calcium concentration elevation; infant growth disorder;
                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                   Claim
                                                                                                                                                                                                                                                                                                                                                                              of infant growth disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                        N-PSDB; AAF59647.
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29-NOV-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    growth hormone
                                                                                                                                                                                                                                                                                                                                                                                            elevate cell calcium concentrations, useful in treatment and diagnosis
                                                                                                                                                                                                                                                                                                                                                                                                        New peptide compounds which induce growth hormone secretion
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Kangawa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           26-APR-2000; 2000JP-0126623
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   24-JUL-2000; 2000WO-JP04907
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         24-APR-2001
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (KANG/) KANGAWA K
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens.
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             Similarity
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                                                                                                                                                                                                                                                                                                                                                Page 186-187; 210pp; Japanese.
                                                       116 AA;
 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Kojima M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    deficiency.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99JP-0210002
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             76.4%;
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51.9%;
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0,
Score 53.5; D
Pred. No. 0.17
0; Mismatches
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            DB
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Gaps
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1 GSSFLSPE----

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RESULT 7
AAB60508
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AAG64943
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                                                                                                                                             Matches
                                                                                                                                                       Query Match
Best Local
                                                                                                                                                                                                                              The present invention provides agents for treating or preventing diseases associated with denaturation or death of neurons, which comprise a growth hormone liberation inhibitor. These can be used for treating or preventing diseases associated with denaturation or death of neurons including those due to cerebral ischaemic disorders such as cerebral infarction or oedema. Other causes of denaturation or death of neurons included Alzheimer's disease, Pick's disease, AIDS related dementia, Parkinson's disease, amyotrophic lateral sclerosis, diabetic neuropathy and anticancer treatments. The present sequence is a peptide described in
  AAB60508;
                        AAB60508 standard; peptide; 28
                                                                                                                                                                                                                                                                                                                                                                 Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         cerebral infarction; oedema; Alzheimer's disease; Parkinson's disease; Pick's disease; dementia; amyotrophic lateral sclerosis; cancer; diabetic neuropathy; neuroprotective; antiinflammatory; nootropic;
                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                        Agents for treating diseases associated with denaturation neurons comprise growth hormone liberation inhibitor -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 28-DEC-2000; 2000WO-JP09431.
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Modified-site
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Unidentified
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Neurone denaturation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Neurone denaturation prevention method related peptide #5.
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                                                                                           μ
                                                                                                                                                                                                                       exemplification of the invention.
                                                                                                               GSSFLSPE----
                                                                                         GSSFLSPEHOKAQORKESKKPPAKLOPR 28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      14;
                                                                                                                                                        Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 KAKEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          standard;
                                                                                                                                                                                               28
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ohyama T,
                                                                                                                                                                                                                                                                                                                                                                Page 17;
                                                                                                                                         75.7%;
ilarity 50.0%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /label= OTHER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             note= "modified by O(C=O)(CH2)6CH3'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         oedema; Alzheimer's disease; Parkinson's disease;
ntia; amyotrophic lateral sclerosis; cancer;
                                                                                                                                                                                                                                                                                                                                                                50pp; Japanese
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Amakawa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        neurone
                                                                                                                 AKLOPR 14
                                                                                                                                      Score 53; DB:
Pred. No. 0.04:
0; Mismatches
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                                                                                                                                                       0.044;
                                                                                                                                                                   DB 22;
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RESULT 8
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                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                  Query Match
Best Local :
Growth hormone secretagogue; GHS; ghrelin; calcium concentration elevation; infant growth disorder;
                                          Human ghrelin,
                                                                       24-APR-2001
                                                                                                                          AAB60509 standard; peptide;
                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New peptide compounds which induce growth hormone secretion elevate cell calcium concentrations, useful in treatment and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             23-JUL-1999; 99JP-0210002.
29-NOV-1999; 99JP-0338841.
26-APR-2000; 2000JP-0126623.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              of infant growth disorders -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Kangawa K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       24-JUL-2000; 2000WO-JP04907
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Rattus norvegicus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 growth hormone deficiency.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Rat ghrelin,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 24-APR-2001
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                                                                                                                                                                                                                          1 GSSFLSPE----
                                                                                                                                                                                             GSSFLSPEHQKAQQRKESKKPPAKLQPR
                                                                                                                                                                                                                                                  14;
                                                                                                                                                                                                                                                                  Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Page 180; 210pp; Japanese.
                                                                                                                                                                                                                                                                                                          28 AA;
                                                                                                                                                                                                                                                  Conservative
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                                                                    (first entry)
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                                          SEQ ID NO:3.
                                                                                                                                                                                                                          -----AKLOPR
                                                                                                                                                                                                                                                               75.7%;
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                                                                                                                            28
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                                                                                                                                                                                                                                                                 Score
Pred.
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                                                                                                                                                                                                                                                                                                                                                                                                                                        The invention relates to a novel peptide compound or its salt which conditions the secretion of growth hormone and/or elevates calcium ion concentration in cells. The peptides are ghrelin homologues and are characterised in that at least one amino acid has been substituted by a modified amino acid and/or a non-amino acid compound. The invention also encompasses the unmodified peptides; the DNA encoding the peptides; vectors and host cells comprising such DNA; a method of producing the peptides comprising recombinant production, optionally followed by chemical modification; an antibody specific for a peptide of the invention; and an assay and kit for detecting the peptides. The peptides of the invention are useful for treating and/or diagnosing diseases caused by a deficiency in growth hormone expression or activity. In particular, they are useful for promoting infant growth due to growth Compone deficiency. The compounds of the invention are safe with con accompanying side effects. The present sequence represents a ghrelin-type growth hormone secretagogue (GHS) of the invention.
                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                          Matches 14;
                                                                               Growth hormone secretagogue; GHS; ghrelin; calcium concentration elevation; infant growth disorder; growth hormone deficiency.
                                                                                                                                    Dog ghrelin-like GH secretagogue peptide, SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                         WO200107475-A1
                                                                                                                                                                                                                            AAB60530 standard; peptide; 28 AA
                                                    Canis familiaris.
                                                                                                                                                                     24-APR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 3; Page 181; 210pp; Japanese
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           of infant growth disorders -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        New peptide compounds which induce growth hormone secretion and diagnosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         23-JUL-1999;
29-NOV-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   growth hormone deficiency.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2001-159704/16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (KANG/) KANGAWA K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          26-APR-2000; 2000JP-0126623
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   24-JUL-2000; 2000WO-JP04907
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                                                                                                                                                                                                                                                                                                                 GSSFLSPEHQRVQQRKESKKPPAKLQPR 28
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                                                                                                                                                                                                                                                                                                                                                                         Similarity
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                                                                                                                                                                                                                                                                                                                                                            Conservative
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                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                     Ŗ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99JP-0210002.
99JP-0338841.
                                                                                                                                                                                                                                                                                                                                                                      75.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Hosoda H,
                                                                                                                                                                                                                                                                                                                                                         ; Score 53; DB; Pred. No. 0.04.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matsuo
                                                                                                                                                                                                                                                                                                                                                                                       DB 22;
                                                                                                                                                                                                                                                                                                                                                                        .044;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Minamitake
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                                                                                                                                                                                                                                                                                                                                                                                     Length 28
                                                                                                                                         NO:31.
                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                          14; Gaps
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RESULT 10
AAE19032
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           induces the secretion of growth hormone and/or elevates calcium ion concentration in cells. The peptides are ghrelin homologues and are characterised in that at least one amino acid has been substituted by a modified amino acid and/or a non-amino acid compound. The invention also encompasses the unmodified peptides; the DNA encoding the peptides; vectors and host cells comprising such DNA; a method of producing the peptides comprising recombinant production, optionally followed by chemical modification; an antibody specific for a peptide of the invention; and an assay and kit for detecting the peptides. The peptides of the invention are useful for treating and/or diagnosing diseases consided by a deficiency in growth hormone expression or activity. In particular, they are useful for promoting infant growth due to growth for mone deficiency. The compounds of the invention are safe with conscious deficiency. The compounds of the invention are safe with present sequence represents a growth hormone deficiency. The compounds of the invention are safe with
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                           Human; ghrelin analogue; growth-hormone secretagogue; GHS receptor; AIDS; acquired immune deficiency syndrome; weight gain; chemotherapy; dialysis; growth hormone; muscle mass; bone density; sexual dysfunction; anorexia; wasting; radiation therapy; obesity; diabetes; retinopathy; hypertension; cardiovascular disorder; gall stone; osteoarthritis; cancer; cytostatic; metabolic; immunomodulator; anti-HIV; anorectic; ophthalmological;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                               Human ghrelin peptide analogue, compound
                                                                                                                                                                                                                                                                                                                  21-MAY-2002
                                                                                                                                                                                                                                                                                                                                                  AAE19032;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The invention relates to a novel peptide compound or its salt which induces the secretion of growth hormone and/or elevates calcium ion
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        of infant growth disorders -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New peptide compounds which induce growth hormone secretion and elevate cell calcium concentrations, useful in treatment and diagnosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          23-JUL-1999;
29-NOV-1999;
                                                                                                                                                                                                                                                                                                                                                                                AAE19032 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2001-159704/16.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Kangawa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          26-APR-2000;
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Local Si
14;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 GSSFLSPE-----AKLOPR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GSSFLSPEHQKLQQRKESKKPPAKLQPR 28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Page 197; 210pp; Japanese.
                                                                                                                                             litholytic; hepatotropic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     28 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Kojima M,
                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2000JP-0126623
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99JP-0210002.
99JP-0338841.
                                                                                                                                                                                                                                                                                                                                                                              peptide; 28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 75.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Hosoda H,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 53;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  14
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 22;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 28,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   14;
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25-MAY-2001; 2001WO-US17026.

06-DEC-2001.

Homo sapiens.

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The present invention relates to a truncated ghrelin analogue or their CC salt, active at growth-hormone secretagogue (GHS) receptor. Ghrelin CC analogue is useful for screening a compound capable of binding to GHS receptor and for stimulating growth hormone secretion. Ghrelin agonist CC is utilised for treating a growth hormone secretion. Ghrelin agonist CC muscle mass and bone density, treating sexual dysfunction in males or CC females, facilitating a weight gain, maintenance of weight, maintenance of for the state of the state of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local
    Homo
                                                                                                                  Human; ghrelin analogue; growth-hormone secretagogue; GHS receptor; AIDS; acquired immune deficiency syndrome; weight gain; chemotherapy; dialysis; growth hormone; muscle mass; bone density; sexual dysfunction; anorexia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            wasting; radiation therapy; obesity; diabetes; retinopathy; hypertension; cardiovascular disorder; gall stone; osteoarthritis; cancer; cytostatic; metabolic; immunomodulator; anti-HIV; anorectic; ophthalmological;
                                           cardiant; litholytic;
                                                                                                                                                                                                                                                                21-MAY-2002
                                                                                                                                                                                                                    Human ghrelin
                                                                                                                                                                                                                                                                                                           AAE19041;
                                                                                                                                                                                                                                                                                                                                                  AAE19041 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Example 4; Page 34; 37pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Truncated ghrelin analogs active at growth-hormone secretagogue receptor useful for diagnosing or treating diseases such as anorexia, bulinia, cancer, obesity, diabetes mellitus, hypertension, osteoarthritis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2002-195531/25
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (MERI ) MERCK & CO INC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 GSSFLSPE-----AKLOPR 14
  варiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                           GSSFLSPEHQRVQQRKESKKPPAKLQPR 28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                           (first entry)
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K
                                                                                                                                                                                                                  peptide analogue,
                                                                                                                                                                                                                                                                                                                                                  peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     75.7%;
                                                                                                                                                                                                                                                                                                                                                    28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 53;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                  compound 17.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 23; Length 28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .044;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              <u>,</u>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              14;
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24-JUN-2002 ABP08975;

(first entry)

ABP08975 RESULT 12

ABP08975 standard;

Protein;

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The present invention relates to a truncated ghrelin analogue or their CC salt, active at growth-hormone secretagogue (GHS) receptor. Ghrelin CC analogue is useful for screening a compound capable of binding to GHS receptor and for stimulating growth hormone secretion. Ghrelin agonist CC is utilised for treating a growth hormone deficient state, increasing CC muscle mass and bone density, treating sexual dysfunction in males or females, facilitating a weight gain, maintenance of weight, maintenance of physical functioning, recovery of physical function, and/or appetite concrease, or appetite increase is particularly useful for a patient concrease, or appetite increase is particularly useful for a patient concrease, or appetite increase is particularly useful for a patient concrease, or appetite increase is particularly useful for a patient concrease, or appetite decrease in cancer cachexia, acquired concentrated in the concrease in a cachexia and wasting in frail concrease, redictions of treatments accompanied by weight loss include complications of diabetes including retriangent treat obesity, diabetes and complications of diabetes including retriangent factor to different considers, where excessive weight is a contributing factor to different considers, where excessive weight is a contributing factor to different considered in the considered particular forms of cancers, and bringing about a weight loss can be used for e.g. to reduce the considered in the considered particular considered pituitary hormones. Unlike longer length ghrelin, ghrelin analogue can be synthesised easily and has increased solubility in physiological buffers. The resent semisore is human obrelin nentitée analogue has buffers.
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                                                                                              Best
                                                                              Matches
                                                                                                                   Query Match
                                                                                                                                                       Seguence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Truncated ghrelin analogs active at growth-hormone secretagogue receptor useful for diagnosing or treating diseases such as anound bulimia, cancer, obesity, diabetes mellitus, hypertension,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Example 4; Page 23; 37pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2002-195531/25.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Bednarek M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      30-MAY-2000; 2000US-207920P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Key
Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (MERI ) MERCK & CO INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            25-MAY-2001; 2001WO-US17026
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO200192292-A2
                                                                                              Local
    μ
                                                                                                                                                                                         present sequence
                                        GSSFLSPE-----
GSSFLSPEHORVOORKEXKKPPAKLOPR
                                                                                              Similarity
                                                                                                                                                     28 AA;
                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /note= "Ser(CO-(CH2)6-CH3)'
                                                                                              75.7%;
50.0%;
                                                                                                                                                                                       is human ghrelin peptide
                                      -AKLOPR 14
                                                                          °,
                                                                                              Score 53;
Pred. No.
                                                                          Mismatches
                                                                                              0
                                                                                                              DB
                                                                                              .044;
                                                                                                            23; Length 28;
                                                                        o
,.
                                                                                                                                                                                         analogue
                                                                          Indels
                                                                        14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             anorexia,
                                                                        Gaps
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CC (referred to as open reading frame, ORFX, where X is 1-1149) (see Table 1 Ci nthe specification). ABN15762 to ABN27252 encode the human ORFX CC proteins given in ABP00010 to ABP1500. ORFX proteins are useful for CC treating or preventing a pathology associated with an ORFX-associated CC disorder in humans, and in the manufacture of a medicament for treating a CC syndrome associated with ORFX-associated CC sequences can be used in gene therapy. ORFX sequences can be used in gene therapy. ORFX sequences can be used in the CC treatment of cancer, hyperproliferative disorders, cirrhosis of liver, osteoarthritis, neurodegenerative disorders, disorders, haemorrhage, CC osteoarthritis, neurodegenerative disorders, disorders, haemorrhage, CC conteoarthritis, neurodegenerative disorders, disorders, haemorrhage, CC conteoarthritis, advoluscular diseases, diabetes mellitus, systemic CC lupus erythematosus, hyperrension, hypothyroidism, cholesterol ester CC torage disease, various immune deficiencies and disorders, intectious CC disease, autoimmune disorders such as multiple scherosis, rheumatoid CC disease, autoimmune thyroiditis, myasthenia gravis, graft-versus-host CC disease, autoimmune tiniamantary eye disease. ORFX proteins are also CC useful for treating burns, incisions, ulcers, for treating osteoporosis, bone degenerative disorders, or periodontal disease, and for gut creating or injury in various rissues and conditions resulting from
                                                                                                                                               Matches
                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Novel human polypeptides and polynucleotides useful for diagnosing, preventing and treating cardiovascular disease, neurodegenerative, hyperproliferative disorders and autoimmune disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2002-106308/14.
N-PSDB; ABN24727.
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                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                           N.B. The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    reperfusion injury in various tissues and conditions resulting from systemic cytokine damage.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             30-MAY-2000; 2000US-206132P.
29-AUG-2000; 2000US-228716P.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               immune deficiency; immune disorder; infectious disease; autoimmune thyroiditis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     cardiovascular disease; diabetes mellitus; systemic lupus erythematosus; hypertension; hypothyroldism; cholesterol ester storage disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The present invention describes substantially purified human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Disclosure; SEQ ID 17932; 1037pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Shimkets RA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  29-MAY-2001; 2001WO-US10836.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO200192523-A2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (CURA-) CURAGEN CORP.
                                                                                                                                                                                         Local
   24
                                                             1 GSSFLSPB------AKLQPR 14
                                                                                                                                                                                                                                                                                                                                                                    ftp.wipo.int/pub/published_pct_sequences.
GSSFLSPEHQKAQQRKESKKPPAKLQPR
                                                                                                                                                                                         Similarity
                                                                                                                                                                                                                                                                                                      90
                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Leach MD
                                                                                                                                                                                                                                                                                                  Ŗ,
                                                                                                                                                                                  75.7%;
                                                                                                                                               0; Mismatches
                                                                                                                                                                                         Score 53; 1
Pred. No. 0
   51
                                                                                                                                                                                                                        DB 23;
                                                                                                                                                                                         . 15 /
                                                                                                                                                   0
                                                                                                                                                                                                                 Length 90;
                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 cirrhosis;
haemorrhage;
                                                                                                                                                   14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               proteins
                                                                                                                                               Gaps
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RESULT 13

AAY87236 ID AAY8 XX RESULT 14

AAY87236 standard; Protein; 117

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                                                                                                                                         The present sequence represents a protein designated Zsig33. The nucleic caids are strongly expressed in stomach tissue. The polypeptide (or allelic variants/orthologs) can be used to stimulate gastric motility, can be used to stimulate gastric motility, can be used to stimulate gastric motility, can be used to treat disorders associated substance in mammals. The products are used to treat disorders associated with gastrointestinal cell contractility, secretion of digestive carzymes/acids, gastrointestinal motility, recruitment of digestive enzymes, gastrointestinal inflammation, reflux disease and nutrient absorption regulation. Zsig33 polypeptides may also be important cultured candongous protein motilin belongs has been associated with neurological and CNS functions. They may therefore be used e.g. to regulate satiety or treat obesity and other metabolic disorders where neurological feedback modulates nutritional absorption. They are useful to identify zsig33 agonists, antagonists and ligands and to produce antibodies.
                                                                          Best
                                                          Matches
                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                 Human polypeptide having homology to motilin, zsig33 - useful to treat gastrointestinal motility disorders, obesity etc. and identify antagonists to treat gastrointestinal hypermotility
                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   24-MAR-1997;
24-MAR-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAW87991;
                                                                                                                                                                                                                                                                                                                                                                                    Claim 13; Page 55-56; 69pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Deisher TA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  23-MAR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Zsig33; gastric motility; gastrointestinal inflammation; reflux disease; nutrient absorption regulation; obesity; metabolic disorder.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Protein designated zsig33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   07-APR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAW87991 standard; Protein; 117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 1999-070071/06.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (ZYMO ) ZYMOGENETICS INC.
 24
                                                                          Local
                             1 GSSFLSPE------AKLOPR 14
GSSFLSPEHQRVQQRKESKKPPAKLQPR
                                                          14;
                                                                          Similarity
                                                                                                                     117 AA;
                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   97US-0822897.
97US-0041102.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /note= "mature protein"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /note= "signal peptide"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        117
                                                                        75.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                          0
                                                                          Score 53;
Pred. No.
                                                          Mismatches
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 51
                                                                        0.2;
                                                                                        DB 20;
                                                          0
                                                                                      Length 117;
                                                          Indels
                                                          14;
                                                          Gaps
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Matches

14;

Conservative

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AAZ98109 to AAZ98242 encode AAY87224 to AAY87357 which represent the CC human signal peptide-containing proteins HSPP-1 to HSPP-134. HSPPs have anti-deancer, anti-inflammatory, anti-microbial, nootropic, hepatotropic, neuroprotective, cardiovascular and anti-asthmatic activities, and can be used in gene therapy. HSPPs can be used to treat or prevent disporders associated with decreased activity or function of HSPP. Antagonists of CC HSPP are used to treat or prevent disporders associated with increased activity or function of HSPP. Such diseases include cell proliferation CC (including cancer), inflammation, cardiovascular, neurological, contribution or descriptions, cardiovascular, neurological, CC cirrhosis, psoriasis, acquired immune deficiency syndrome, anaemia, CC asthma, Crohn's disease, microbial or other infections, congestive or ischaemic heart disease, microbial or other infections, congestive or cischaemic heart disease, Alzheimer's, Parkinson's or Huntington's CC diseases, schizophrenia, ovulatory defects, muscular dystrophy). HSPP CC detecting HSPP in standard hybridisation and amplification assays (for triplex-forming or ribozyme therapputics, for detecting related sequences or genetic variations, and for chromosomal mapping. HSPP are also used to craise specific antibodies (Ab) and to screen for agonists and contential theraneutic accorders).
 Best Local Similarity
                     Query Match
                                                                                        antagonists (potential therapeutic agents). Ab are used to diagnose, monitor, HSPP-related diseases (in usual immunoassays), as therapeuti antagonists, in competitive drug screens, and for purification of HSP
                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            26-JUN-1998;
31-JUL-1998;
01-OCT-1998;
11-DEC-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New human signal peptide-containing proteins useful in treatment, prevention and diagnosis of e.g. cancer, inflammation and cardiovascular disease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human; signal peptide-containing protein; HSPP; diagnosis; cancer; inflammation; cardiovascular disease; anticancer; anti-inflammatory; antimicrobial; noctropic; neuroprotective; cardiovascular; hepatotropic; antiasthmatic; gene therapy; cell proliferation; neurological disorder; reproductive disorder; developmental disorder; arteriosclerosis; cirrhosis; psoriasis; acquired immune deficiency syndrome; anaemia; asthma; Crohn's disease; infection; Alzheimer's disease; schizophrenia; parkinson's disease; Huntington's disease; ovulatory defect;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               N-PSDB;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              25-JUN-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 muscular dystrophy.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human signal peptide containing
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAY87236;
                                                                                      natural
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DB; AAZ98121.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            INCYTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Page 168-169; 327pp;
                                                                                    sources.
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                                                    Ā
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Au-Young
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          98US-0090762.
98US-0094983.
98US-0102686.
98US-0112129.
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 75
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Yue
Score
Pred.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             protein HSPP-13
S3;
DB 21;
0.2;
              Length 117
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R, Hillman
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Sequence

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RESULT 15
AAM/38890
ID AAM/38890
XX AAM/38890
XX AAM/38890
AC AAM/38
XX AC AAM/38

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                                                                                              The invention relates to human nucleic acids (AAI57798-AAI61369) and the encoded polypeptides (AAM38642-AAM42213) with nootropic, immunosuppressant and cytostatic activity. The polynucleotides are useful in gene therapy. A composition containing a polypeptide or polynucleotide of the invention may be used to treat diseases of the peripheral nervous system, such as peripheral nervous injuries, peripheral neuropathy and localised neuropathies and central nervous system diseases, such as a localised neuropathies and central nervous system diseases, such as a liment of the activity brager Syndrome. Other uses include the lateral sclerosis, and Shy-Drager Syndrome. Other uses include the activiny inhibin activity, chemotactic/chemokinetic activity, haemostatic and thrombolytic activity, cancer diagnosis and therapy, drug screening, assays for receptor activity, arthritis and inflammation, leukaemias and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              21-JAN-2000;
25-APR-2000;
09-JUL-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 19-JUL-2000;
03-AUG-2000;
14-SEP-2000;
                                                                                       assays for receptor activity, C.N.S disorders.
                                                 specification.
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29-NOV-2000;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  peripheral nervous system; neuropathy; central nervous system; CNS; Alzheimer's; Parkinson's disease; Huntington's disease; haemostatic; amyotrophic lateral sclerosis; Shy-Drager Syndrome; chemotactic; chemokinetic; thrombolytic; drug screening; arthritis; inflammation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (HYSE-)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human; nootropic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human polypeptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                22-OCT-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAM38890;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     24
                                                                  disorders.
The sequen
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DB; AAI58046.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            nucleic acids and as central nervous
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GSSFLSPEHQRVQQRKESKKPPAKLQPR
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Liu C,
Wang Z,
Zhou P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HYSEQ INC
                                                                    sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     standard; Protein; 117
                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQ ID NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2000US-0488725.

2000US-0552317.

2000US-05598042.

2000US-0620312.

2000US-0653450.

2000US-0663191.

2000US-0693036.

2000US-0693036.
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Wehrman T,
                                                                    data
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 immunosuppressant; cytostatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQ ID NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Goodrich R,
                                                                                                                                                                                                                                                                                                                                                                                                                             2035; 10078pp;
                                                                for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            polypeptides, useful for system injuries -
                                                                  this
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Chen
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Xu C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          injuries
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Ku C, Xue AJ,
Drmanac RT;
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                                                                patent
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                                                                                                                                                                                                                                                                                                                                                                                                                          English.
                                                                did
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      central nervous system;
                                                                not
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Yang
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                                                                form
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                                                           part
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             disorders
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                                                           printed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
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     Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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/cgn2_6/ptodata/1/iaa/6A_COMB.pep:*
/cgn2_6/ptodata/1/iaa/6B_COMB.pep:*
/cgn2_6/ptodata/1/iaa/pcTUS_COMB.pep:*
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US-09-608-810A-7
US-08-277-540-7
US-08-430-787A-7
US-08-430-787A-7
US-08-827-208-3
US-09-948-809-3
US-08-598-873-36
PCT-US91-08177-13
US-08-605-430-36
PCT-US91-08177-13
US-08-699-45508-2
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Sequence 9, Appli
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Sequence 8, Appli	Sequence 4, Appli	Sequence 2, Appli	Sequence 4, Appli	Sequence 22, Appl	Sequence 17, Appl	Sequence 2, Appli	Sequence 12, Appl	Patent No. 5180808	-	•	Sequence 43, Appl	Sequence 43, Appl	Sequence 43, Appl	Sequence 1, Appli	Seguence 20, Appl	Seguence 15, Appl	Sequence 43, Appl

ALIGNMENTS

#### ; Sequence 2, Application US/09046479 ; Patent No. 6291653 ; GENERAL INFORMATION: APPLICANT: Sheppard, Paul O. APPLICANT: Deisher, Theresa A. TITLE OF INVENTION: MOTILIN HOMOLOGS NUMBER OF SEQUENCES: 7 CORRESPONDENCE ADDRESS: ADDRESSE: ZymoGenetics, Inc. STREET: 1201 Eastlake Avenue East MOLECULE TYPE: protein ; FRAGMENT TYPE: internal US-09-046-479-2 RESULT 1 US-09-046-479-2 COMPUTER: IBM Compatible OPERATING SYSTEM: DOS SOFTWARE: FastSEQ for Windows Version 2. CURRENT APPLICATION DATA: APPLICATION NUMBER: US/09/046,479 FILING DATE: CLASSIFICATION: PRIOR APPLICATION DATA: APPLICATION NUMBER: APPLICATION NUMBER: INFORMATION FOR SEQ ID NO: : SEQUENCE CHARACTERISTICS: LENGTH: 117 amino acids TYPE: amino acid STRANDENNESS: single COMPUTER READABLE FORM: MEDIUM TYPE: Diskett FILING DATE: ATTORNEY/AGENT INFORMATION: TELECOMMUNICATION INFORMATION: TELEPHONE: 206-442-6672 STREET: 1201 Ea CITY: Seattle STATE: WA TELEPHONE: 206-442-6678 NAME: Sawislak, Deborah A REGISTRATION NUMBER: 37,438 REFERENCE/DOCKET NUMBER: 97-TOPOLOGY: TELEX: COUNTRY: 98102 USA linear Diskette 97-04

Query Match
Best Local Similarity
Matches 14; Conserv

Conservative

75.7**%**; 50.0**%**;

Score 53; DB Pred. No. 0.01:

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14;

Gaps

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DB 4; .015;

Length 117; Indels

24

GSSFLSPEHQRVQQRKESKKPPAKLQPR

51.4

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APPLICANT: Sheppard, Paul O.
APPLICANT: Jaspers, Stephen R.
APPLICANT: Deisher, Theresa A.
APPLICANT: Bishop, Paul D.
TITLE OF INVENTION: SGIP PEPTIDES
FILE REFERENCE: 99-51
CURRENT APPLICATION NUMBER: US/09/608,810A
CURRENT FILING DATE: 2000-06-30
                                                                                                                                                                      US-09-608-810A-4
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                                                                                                                            GENERAL INFORMATION:
                                                                                                                                         Sequence 4, Application US/09608810A Patent No. 6420521
                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
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INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                        MOLECULE TYPE: FRAGMENT TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEPHONE: 206-442-6672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: US/08/822,897C FILING DATE: CLASSIFICATION: 536 PRIOR APPLICATION DATA: APPLICATION NUMBER: FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: FastSEQ for Windows Version 2.0 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM:
MEDIUM TYPE: Diskett
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Sheppard, Paul O.
APPLICANT: Deisher, Theresa A.
TITLE OF INVENTION: MOTILIN HOMOLOGS
NUMBER OF SEQUENCES: 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                              24 GSSFLSPEHQRVQQRKESKKPPAKLQPR 51
                                                                                                                                                                                                                                                                                                                                                                                                                   LENGTH: 117 amino acids
TYPE: amino acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME: Sawislak, Deborah A
REGISTRATION NUMBER: 37,438
REFERENCE/DOCKET NUMBER: 97
                                                                                                                                                                                                                                                            1 GSSFLSPE------AKLOPR 14
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1201 Eastlake Avenue
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APPLICANT: Sheppard, Paul O.
APPLICANT: Jaspers, Stephen R.
APPLICANT: Deisher, Theresa A.
APPLICANT: Deisher, US/99/608,810A
CURRENT APPLICATION NUMBER: 60/141,592
PRIOR APPLICATION NUMBER: 60/141,592
PRIOR APPLICATION NUMBER: 60/141,592
PRIOR FILING DATE: 1999-06-30
NUMBER OF SEQ ID NOS: 7
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 2
LENGTH: 11
TYPE: PRT
TYPE: PRT
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                                                                                                                                                                                                                                                     Sequence 7, Application US/07649591B Patent No. 5206161
GENERAL INFORMATION:
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Matches 8; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR APPLICATION NUMBER: 60/141,592
PRIOR FILING DATE: 1999-06-30
NUMBER OF SEQ ID NOS: 7
SOFTWARE: FASTSEQ for Windows Version
SEQ ID NO 4
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Best Local :
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COUNTRY: USA
ZIP: 94080
COMPUTER READABLE FORM:
MEDIUM TYPE: 5.25 inch, 360 Kb floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURE:
NAME/KEY: SIGNAL
LOCATION: (1)...(23)
                                                                                                                                                                            APPLICANT: Dennis Drayna and Daniel Eaton
TITLE OF INVENTION: No. 5206161el Plasma Carboxypeptidase
NUMBER OF SEQUENCES: 8
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LENGTH: 117
TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                              STREET: 460 Point San Bruno Blvd
CITY: South San Francisco
STATE: California
                                                                                                                                                                  ADDRESSEE:
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Similarity 50.0%;
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INFORMATION FOR SEQ ID NO: 7:
SEQUENCE CHARACTERISTICS:
LENGTH: 417 amino acids
TYPE: AMINO ACID
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Similarity 50.0%; Matches 6; Conservative
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                                                        APPLICATION NUMBER: 08/167727

APPLICATION UNMBER: 07/959944

FILING DATE: 14-OCT-1993

PRIOR APPLICATION UNMBER: 07/959944

FILING DATE: 14-OCT-1992

PRIOR APPLICATION UNMBER: 07/649591

FILING DATE: 01-FEB-91

APPLICATION UNMBER: 07/649591

FILING DATE: 01-FEB-91

ATTORNEY/AGENT INFORMATION:

NAME: Habak, Janet E

REGISTRATION NUMBER: 28,616

REGISTRATION NUMBER: 28,616
                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: 5.25 inch, 360 Kb flop;
MEDIUM TYPE: 5.25 inch, 360 Kb flop;
COMPUTER: IBM PC compartible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: patin (Genentech)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/277,540
FILING DATE: 19-JUL-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GENERAL INFORMATION: APPLICANT: Drayna, Dennis T., Eaton, Dan L.
TITLE OF INVENTION: No. 5474901el Plasma Carboxypeptidase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME: HABBAK, JAMET E.
REGISTRATION NUMBER: 28,616
REFERENCE/DOCKET NUMBER: 68
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415/266-1896
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415/225-1896
TELEFAX: 415/952-9881
                                                                                                                                                                                                                                                                                                                         CLASSIFICATION: 435
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CORRESPONDENCE ADDRESS:
ADDRESSEE: Genentech, Inc.
STREET: 460 Point San Bruno Blvd
CITY: South San Francisco
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATTORNEY/AGENT INFORMATION:
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PRIOR APPLICATION DATA:
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CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     385 SGFLLPESRIKP 396
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  360 Kb floppy disk
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Pred. No. 57;
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Query Match
Best Local Similarity
Thes 6; Conserve
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US-08-430-787A-7
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US/08/430,787A
FILING DATE: 27-APR-1995
CLASSIFICATION: 514
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/277,540
FILING DATE: 19-UUL-1994
APPLICATION NUMBER: 08/167727
FILING DATE: 15-DEC-1993
PRIOR APPLICATION DATA:
APPLICATION DATA:
APPLICATION UMBER: 07/959944
FILING DATE: 14-OCT-1992
PRIOR APPLICATION DATA:
APPLICATION UMBER: 07/649591
PRIOR APPLICATION DATA:
APPLICATION UMBER: 07/649591
PRIOR APPLICATION DATA:
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SEQUENCE CHARACTERISTICS:
LENGTH: 417 amino acids
TYPE: amino acid
                                                                                                                                                                                                                                                                           TELEX: 910/371-7168
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 417 amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GENERAL INFORMATION:
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COMPUTER TYPE: 5.25 inch, 360 Kb f
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COMPUTER: PC-DOS/MS-DOS
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CORRESPONDENCE ADDRESS:
ADDRESSEE: Genentech,
                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELECOMMUNICATION INFORMATION: TELEPHONE: 415/225-1896
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SOFTWARE: patin (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME: Hasak, Janet E.
REGISTRATION NUMBER: 28
REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                          TYPE: amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STREET: 460 Point San Bruno Blvd
CITY: South San Francisco
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local Similarity
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                                                                                                                                                                                                                               TOPOLOGY:
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2 SSFLSPEAKLOP 13
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                                                                   Conservative
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No. 5593674el Plasma Carboxypeptidase
                                                                                              52.9%;
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                                                                Score 37; DB 1;
Pred. No. 57;
4; Mismatches
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                                                                                                                          Length 417;
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; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-09-460-145-2
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                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity 7/...
Thes 7; Conservative
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                                                                                                                                                                                                                                                Sequence 4, Application US/09460145 Patent No. 6287838
                                                                                                                                      GENERAL INFORMATION:
APPLICANT: Kriz, Ron
APPLICANT: Song, Chuanzheng
TITLE OF INVENTION: CYTOSOLIC PHOSPHOLIPASE A2-BETA ENZYMES
NUMBER OF SEQUENCES: 9
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 2, Application US/09460145
Patent No. 6287838
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEFAX: (617) 876-5851
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATTORNEY/AGENT INFORMATION:
NAME: Brown, Scott A.
REGISTRATION NUMBER: 32,724
REFERENCE/DOCKET NUMBER: G15289
TELECOMMUNICATION INFORMATION:
TELECHONE: (617) 498-8224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQUENCES: 9
CORRESPONDENCE ADDRESS:
ADDRESSEE: Genetics Institute, Inc.
STREET: 87 CambridgePark Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Kriz, Ron
APPLICANT: Song, Chuanzheng
TITLE OF INVENTION: CYTOSOL
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APPLICATION NUMBER:
                                                                                STREET: 87 Campr
CITY: Cambridge
                                                                                                                                                                                                                                                                                                                                                 668 SPEEQLOPR 676
                                                     COUNTRY:
                                                                                                                            ADDRESSEE:
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USA
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                                                                                                      R: Genetics Institute,
87 CambridgePark Drive
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Pred. No. 1.2e+02;
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Patent No. 60251
                                               COMPUTER: IBM PC COMPATIBLE

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: PatentIn Release #1.0, Version #1.30

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/08/827,208

FILING DATE: 28-MAR-1997

CLASSIFICATION: 435

PRIOR APPLICATION DATA:

APPLICATION NUMBER: US 60/014,608

FILING DATE: 29-MAR-1996

PRIOR APPLICATION DATA:

APPLICATION NUMBER: US 60/041,264

FILING DATE: 19-MAR-1997
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Best Local
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 797 amino acid
                                ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT:
                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQUENCES: 4
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Kramer, Ruth M.
APPLICANT: Pickard, Richard T.
APPLICANT: Sharp, John D.
APPLICANT: Strifler, Beth A.
APPLICANT: Strifler, Beth A.
TITLE OF INVENTION: HUMAN PHOSPHOLIPASE A2 AND RELATED
TITLE OF INVENTION: NUCLEIC ACID COMPOUNDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MOLECULE TYPE: protein
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: US/09/460,145
FILING DATE:
CLASSIFICATION:
PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       687 SPEEQLÓPR 695
                                                                                                                                                                                                                                                                                                                                                                    STREET: Lilly Corporate CITY: Indianapolis
REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                           COUNTRY:
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TOPOLOGY: li
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REGISTRATION NUMBER: 32
REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         6 SPEAKLOPR 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                        United States of America
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (617) 876-5851
                                                                                                                                                                                                                                                                                   Floppy disk
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77.8%;
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Pred. No.
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Query Match
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                                                                                                                                                                                 PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/041,264
PILING DATE: 19-MAR-1997
ATTORNEY/AGENT INFORMATION:
NAME: Gaylo, Paul J.
REGISTRATION NUMBER: 36,808
REFERENCE/DOCKET NUMBER: X-10610
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEFAX: (317) 276-3861 INFORMATION FOR SEQ ID NO: 3: SEQUENCE CHARACTERISTICS: LENGTH: 913 amino acids
                                                                                                   TELECOMMUNICATION INFORMATION:
TELEPHONE: (317) 276-0756
TELEPAX: (317) 276-3861
INFORMATION FOR SEQ ID NO: 3:
                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/500,358
FILING DATE:
CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Pickard, Richard T.
APPLICANT: Sharp, John D.
APPLICANT: Strifler, Beth A.
TITLE OF INVENTION: HUMAN PHOSPHOLIPASE A2 AND RELATED
TITLE OF INVENTION: NUCLEIC ACID COMPOUNDS
                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/08/827,208
FILING DATE: 28-MAR-1997
APPLICATION NUMBER: US 60/014,608
FILING DATE: 29-MAR-1996
                                                           SEQUENCE CHARACTERISTICS:
LENGTH: 913 amino acide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CORRESPONDENCE ADDRESS:
ADDRESSEE: Eli Lilly and Company
STREET: Lilly Corporate Center
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE/DOCKET NUMBER: X-10610 TELECOMMUNICATION INFORMATION: TELEPHONE: (317) 276-0756
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Kramer, Ruth M.
APPLICANT: Pickard, Richard T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TOPOLOGY: linear MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           803 SPEEQLOPR 811
                       TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CITY: Indianapolis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: amino acid
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TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indiana
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Pred. No. 1.4e+02;
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Query Match
Best Local Similarity
Watches 7; Conserv
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GENERAL INFORMATION:
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Best Local Similarity
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                                                                                                                                                                                                           TELEPHONE: (317) 276-0756
TELEFAX: (317) 276-3861
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                       CLASSIFICATION:
PRIOR APPLICATION UNMBER: 08/827,208
FILING DATE:
PRIOR APPLICATION NUMBER: US 60/041,264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/498,809
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APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Strifler, Beth A.
TITLE OF INVENTION: HUMAN PHOSPHOLIPASE A2 AND RELATED
TITLE OF INVENTION: NUCLEIC ACID COMPOUNDS
NUMBER OF SEQUENCES: 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT:
                                                                                                                                                                                                                                                              TELECOMMUNICATION INFORMATION: TELEPHONE: (317) 276-0756
                                                                                                                                                                                                                                                                                                                                          FILING DATE: 19-MAR-1997
ATTORNEY/AGENT INFORMATION:
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803 SPEEQLQPR 811
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STREET: Lilly Corpo
CITY: Indianapolis
                                                                                                                                                             LENGTH: 913 amino acids
TYPE: amino acid
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                            NAME: Gaylo, Paul J.
REGISTRATION NUMBER: 36,
REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COUNTRY: United States of America
                              6 SPEAKLOPR 14
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Lilly Corporate Center
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Pickard, Richard T.
Sharp, John D.
                                                              Conservative
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                                                                               52.9%;
77.8%;
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                                                                                                                                                                                                                                                                                                             36,808
                                                                             Score 37; DB 4;
Pred. No. 1.4e+02;
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Pred. No. 1.4e+02;
1; Mismatches 1
                                                                Mismatches
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RESULT 13 US-08-598-873-36

Sequence 36, Application US/08598873 Patent No. 5928884 GENERAL INFORMATION:

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COMPUTER READABLE FORM:

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

COMPUTER: IBM PC COMPATIBLE

COMPUTER: PATENTIAL PC-DOS/MS-DOS

SOFTWARE: PATENTIAL Release #1.0, Version #1.30

CURRENT APPLICATION DATA:

APPLICATION UNMBER: US/08/598,873

FILING DATE: 09-FEB-1996

CLASSIFICATION: 514

ATTORNEY/AGENT INFORMATION:

NAME: Friebel, Thomas E.

NAME: Friebel, Thomas E.

NAME: Friebel, Thomas E.

NAME: Friebel, Thomas E.

NAME: PRIEMER: 29,258
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INFORMATION FOR SEQ ID NO: 3
SEQUENCE CHARACTERISTICS:
LENGTH: 57 amino acids
TYPE: amino acid
TOPOLOGY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 36, Application US/08605430 Patent No. 6242212 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                         COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: ISM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REGISTRATION NUMBER: 29,258
REFERENCE/DOCKET NUMBER: 8661
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 790-9090
TELEFAX: (212) 869-9741/8864
                                                                                                                                                                                                                                                                                                                                        APPLICANT: Croce, Carlo M.
APPLICANT: Huebner, Kay
TITLE OF INVENTION: FHIT PROTEINS AND NUCLEIC ACIDS AND
TITLE OF INVENTION: METHODS BASED THEREON
NUMBER OF SEQUENCES: 86
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NUMBER OF SEQUENCES: 7
CORRESPONDENCE ADDRESS:
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION: FHIT PROTEINS AND NUCLEIC ACIDS AND TITLE OF INVENTION: METHODS BASED THEREON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Croce, Carlo M. APPLICANT: Huebner, Kay
                   APPLICATION NUMBER: US/08/605,430 FILING DATE: 22-FEB-1996 CLASSIFICATION: 536
                                                                                                                                                                                                                                                          CITY: New York
STATE: New Yor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               51.4%;
Local Similarity 58.3%;
es 7; Conservarivo
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                                                                                                                                                                                                              COUNTRY: U.S.A. ZIP: 10036-2711
                                                                                                                                                                                                                                                                                                  STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STATE: New York COUNTRY: U.S.A.
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Pred. No. 8.8;
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                                                                                            ; MOLECULE TYPE: protein PCT-US91-08177-13
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Matches
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                                                            Query Match
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                         TELEFAX: 202-962-8300 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: PCT/US
FILING DATE: 19911104
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/
FILING DATE: 05-NOV-1990
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REGISTRATION NUMBER: 29,258
REFERENCE/DOCKET NUMBER: 866
TELECOMMUNICATION INFORMATION:
                                                                                                                                      SEQUENCE CHARACTERISTICS:
LENGTH: 263 amino acids
TYPE: AMINO ACID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STREET: 1201
CITY: Washington
STATE: DC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQUENCES: 19
CORRESPONDENCE ADDRESS:
ADDRESSEE: Venable, Baetjer, Howard & Civiletti
STREET: 1201 New York Avenue N.W., suite 1000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                     TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE: PatentIn Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Samal, Siba K
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LENGTH: 57 american TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              y Match 51.4%;
Local Similarity 58.3%;
nes 7; Conservative
                                                                                                                                                                                                                                                     NAME: Highet, David W
REGISTRATION NUMBER: 30,
REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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                                Local Similarity es 7; Conserv
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6 SPEAKLOPR 14
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                                  Conservative
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                                                                                                                             linear
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                                                50.0%;
77.8%;
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Pred. No. 8.8;
1; Mismatches
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                                               Score 35; DB
Pred. No. 78;
                                  Mismatches
                                                               DB 5;
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Maximum Match 100%
Listing first 45 s
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Perfect score:
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  GenCore version 5.1.3 (c) 1993 - 2003 Compugen Ltd
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C;Accession: A59316
R;KOjima, M: Hosoda, H.; Date, Y.; Nakazato, M.; Matsuo, H.; Kangawa, K.
Nature 402, 656-660, 1999
A;Title: Ghrelin is a growth-hormone-releasing acylated peptide from stomach.
A;Reference number: A59316; MUID:20067959; PMID:10604470

A; Molecule type: mRNA A; Residues: 1-117 < KOJ>

A, Accession: A59316

A,Status: not compared with conceptual translation

ghrelin precursor - human N;Alternate names: preproghrelin C;Species: Homo sapiens (man) C;Date: 16-Jun-2000 #sequence\_revision 16-Jun-2000 #text\_change 21-Jul-2000

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N-ethylmaleimide s microtubule-associ microtubule-associ	probable serine/th serine/threonine-s probable gamma-glu probable gamma-dlu		glycosyltransferas hypothetical prote

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ghrelin precursor - rat

N.Alternate names: preproghrelin
C;Species: Rattus norvegicus (Norway rat)
C;Date: 16-Jun-2000 #sequence_revision 16-Jun-2000 #text_change 21-Jul-2000
C;Accession: B59316
R;KOjima, M.; Hosoda, H.; Date, Y.; Nakazato, M.; Matsuo, H.; Kangawa, K.
Nature 402, 656-660, 1999
A;Title: Ghrelin is a growth-hormone-releasing acylated peptide from stomach.
A;Reference number: A59316; MUID:20067959; PMID:10604470
A;Accession: B59316
A;Accession: B59316
A;Status: not compared with conceptual translation
A;Molecule type: mRNA; protein
A;Residues: 1-117 <KOJ-
A;Cross-references: GB:AB029433; NID:g6691569; PIDN:BAA09370.1; PID:g6691570
A;Cross-references: GB:AB029433; NID:g6691569; PIDN:BAA09370.1; PID:g6691570
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Experimental source: tissue stomach endocrine cells
A;Note: submitted to GenBank, June 1999
C;Comment: Ghrelin secreted by the stomach stimulates the release of (C;Superfamily: motilin
C;Keywords: hormone; lipoprotein; stomach
C;Keywords: hormone; lipoprotein; stomach
C;Xeywords: signal sequence #status predicted <SIG>
F;1-23/Comain: signal sequence #status predicted <MAT>
F;24-51/Product: ghrelin #status predicted <MAT>
F;26-5117/Domain: carboxyl-terminal propeptide #status predicted <CTP>
F;26/Binding site: octanoate (Ser) (covalent) #status experimental
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A; Experimental source: strain SD; tissue stomach endocrine cells
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glycoprotein G - bovine respiratory syncytial virus (isolate VC464)
C; Species: bovine respiratory syncytial virus
C; Date: 14-Jul-1994 #sequence_revision 14-Jul-1994 #text_change 07-N
C; Accession: PQ0769
R; Mallipeddi, S.K.; Samal, S.K.
J. Gen. Virol. 74, 2001-2004, 1993
A; Title: Sequence variability of the glycoprotein gene of bovine res
A; Reference number: JQ2284; MUID:93389461; PMID:8376974
A; Accession: PQ0769
A; Molecule type: mRNA
A; Residues: 1-248 <MAL>
A; Experimental source: isolate VC464
A; Note: the authors translated the codon ACC for residue 85 as His a
C; Superfamily: respiratory syncytial virus major surface glycoprotein
C; Keywords: glycoprotein; transmembrane protein
F; 1-29/Domain: intracellular #status predicted (INT)
F: 10-157/Domain: transmembrane #status predicted (INT)
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A; Residues: 1-250 < MAL>
C; Superfamily: respiratory syncytial virus major surface C; Keywords: glycoprocein; transmembrane protein
F; 1-31/Domain: intracellular #status predicted < INT>
F; 1-31/Domain: intracellular #status predicted < INT>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          glycoprotein G - bovine respiratory syncytial virus (isolate C;Species: bovine respiratory syncytial virus C;Species: bovine respiratory syncytial virus C;Date: 14-Jul-1994 #sequence_revision 14-Jul-1994 #text_chan C;Accession: PQ0768
R;Mallipeddi, S.K.; Samal, S.K.
J. Gen. Virol. 74, 2001-2004, 1993
A;Title: Sequence variability of the glycoprotein gene of bov A;Reference number: JQ2284; MUID:93389461; PMID:8376974
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C;Comment: Ghrelin secreted by the stomach stimulates to Superfamily: motilin
C;Keywords: hormone; lipoprotein; stomach
C;Keywords: signal sequence #status predicted <SIG>F;1-23/Domain: signal sequence #status predicted <MAT>F;24-51/Product: ghrelin #status predicted <MAT>F;52-117/Domain: carboxyl-terminal propeptide #status predicted with the predict
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                                                                                                                                                                   ;32-59/Domain: transmembrane #status predicted <TMM>;60-250/Domain: extracellular #status predicted <EXT>;78,156,226,241,244/Binding site: carbohydrate (Asn)
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                                   Score 43; DB:
Pred. No. 4.1;
1; Mismatches
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Pred. No. 0.02
0; Mismatches
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                                                                                                   DB 2;
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A;NCatus, Free, DNA
A;Molecule type; DNA
A;Residues: 1-105 <TIGR>
A;Cross-references: GB:U39688; GB:L43967; NID:g1045753; PID:g1045769; TIGR:MG092
                                                                                                                                                                                                                                                                                                                                                   , C.A.; Venter, J.C. Science 270, 397-403, 1995 Science 270, 397-403, 1995 A;Title: The minimal gene complement of Mycoplasma genitalium A;Reference number: A64200; MUID:96026346; PMID:7569993 A;Accession: B64210
                                                                                                                                                                                                                                                                                                                                                                                                                                R;Fraser, C.M.; Gocayne, J.D.; White, O.; Adams, M.D.;
M.; Fuhrmann, J.; Nguyen, D.; Utterback, T.R.; Saudek,
, C.A.; Venter, J.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       C;Species: Mycoplasma genitalium
C;Date: 17-Nov-1995 #sequence_revision 17-Nov-1995 #text_change 07-Dec-1999
C;Accession: B64210
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C;Superfamily: Escherichia coli ribosomal protein
C;Keywords: protein biosynthesis; ribosome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            R;Himmelreich, R.; Hilbert, H.; Plagens, H.; Pirkl, E.; Li, B.C.; Herrmann, R. Nucleic Acids Res. 24, 4420-4449, 1996
A;Title: Complete sequence analysis of the genome of the bacterium Mycoplasma A;Reference number: S73327; MUID:97105885; PMID:8948633
A;Accession: S73927
                                                                                                                                                             C;Superfamily:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ribosomal protein S18 - Mycoplasma genitalium
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A; Residues: 1-104 <HIM>
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N,Alternate names: hypothetical protein G07_orf104b
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Best Local
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8; Conserv
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Pred. No. 2.4;
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D.M.; Ph:
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protein K02E2.7

Caenorhabditis elegans

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conserved hypothetical protein CC0691 [imported] - Caulobacter crescentus C;Species: Caulobacter crescentus C;Species: Caulobacter crescentus C;Date: 20-Apr-2001 #sequence_revision 20-Apr-2001 #text_change 20-Apr-2001 C;Accession: H8734 R;Nierman, W.C.; Feldblyum, T.V.; Paulsen, I.T.; Nelson, K.B.; Eisen, J.; Heidelberg, J. R;Nierman, W.C.; Feldblyum, T.V.; Paulsen, I.T.; Durkin, A.S.; Gwinn, M.L.; Haft, D.H.; Kolon, J.; Laub, M.T.; DeBoy, R.T.; Dodson, R.J.; Durkin, A.S.; Gwinn, M.L.; Haft, D.H.; Kolon, J.; Ermolaeva, M.; White, O.; Salzberg, S.L.; Shapiro, L.; Venter, J.C.; Fraser, C.M. Proc. Natl. Acad. Sci. U.S.A. 98, 4136-4141, 2001
A;Title: Complete Genome Sequence of Caulobacter crescentus.
A;Reference number: A87249; MUID:21173698; PMID:11259647
A;Accession: H87334
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C;Superfamily: Streptomyces lavendulae plasmid pSLG33 hypothetical 31.9K protein
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Nucleic Acids Res. 21, 3582, 1993
A;Title: Nucleotide sequence of the mini-plasmid pSLG33
A;Reference number: S34850; MUID:93348001; PMID:8346038
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                hypothetical 31.9K protein - Streptomyces lavendulae plasmid pSLG33 C;Species: Streptomyces lavendulae C;Date: 19-Mar-1997 #sequence_revision 25-Apr-1997 #text_change 20-1C;Accesion: S34851
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A;Cross-references: GB:AE005673; NID:gl3421912; PIDN:AAK22676.1; GSPDB:GN00148
C;Genetics:
A;Gene: CC0691
                                                                 A; Molecule type: DNA
A; Residues: 1-208 < STO>
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A; Residues: 1-283 < FEL>
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A; Status: preliminary; translation not
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Introns: 35/1; 62/1
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Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 15-Oct-1999
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Pred. No. 5.9;
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Query Match
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Marches 8; Conserva
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A; Authors: Kreft, J.; Kuhn, M.; Kunst, F.; Kurapkat, G.; Madueno, E.; ok, C.; Schlueter, T.; Simmes, N.; Tierrez, A.; Vazquez-Boland, J.A.; A;Title: Comparative genomics of Listeria species.
A;Reference number: AB1077; MUID:21537279; PMID:11679669
A;Accession: AB1086
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   R;Nierman, W.C.; Feldblyum, T.V.; Paulsen, I.T.; Nelson, K.E.; Bisen, J.; Heidelberg, J.
B.; Laub, M.T.; DeBoy, R.T.; Dodson, R.J.; Durkin, A.S.; Gwinn, M.L.; Haft, D.H.; Kolor
n, J.; Ermolaeva, M.; White, O.; Salzberg, S.L.; Shapiro, L.; Venter, J.C.; Fraser, C.M
Proc. Natl. Acad. Sci. U.S.A. 98, 4136-4141, 2001
A;Title: Complete Genome Sequence of Caulobacter crescentus.
A;Reference number: A87249; MUID:21173698; PMID:11259647
                                                                                                                                                                                                                                                                                                                                                                                                                                               C;Accession: AB1086
R;Glaser, P.; Frangeul, L.; Buchrieser, C.; Amend, A.; Baquero, F.
; Dominguez-Bernal, G.; Duchaud, E.; Durand, L.; Dussurget, O.;
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A; Residues: 1-343 <GLA>
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C;Date: 27-Nov-2001 #sequence_revision 27-Nov-2001 #text_change 27-Nov-2001
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A;Gene: CC0465
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C;Species: Caulobacter crescentus
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A; Residues: 1-308 <STO>
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7; Conserv
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Pred. No. 18;
2; Mismatches
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A;Contents: annotation; conformation by (1)H-NMR, residues 577-608 R;Nakaseko, Y.; Neuhaus, D.; Klug, A.; Rhodes, D.
J. Mol. Biol. 228, 619-636, 1992
A;Title: Adjacent zinc-finger motifs in multiple zinc-finger peptic A;Reference number: A58624; MUID:93085740; PMID:1453467
A;Contents: annotation; conformation by (1)H-NMR
A;Contents: annotation; conformation by (1)H-NMR
R;Neuhaus, D.; Nakaseko, Y.; Schwabe, J.W.R.; Klug, A.
J. Mol. Biol. 228, 637-651, 1992
A;Title: Solution structures of two zinc-finger domains from SWI5 c
                                                                                                                                                                                                                                                                           A;Molecule type: DNA
A;Residues: 1-709 <mUR>
A;Residues: 1-709 <mUR>
A;Cross-references: EMBL:Z50046; NID:g899393; PIDN:CAA90369.1; PID:g899396; GSPDB:GN0000
A;Experimental source: strain AB972
R;Dutnall, R.N.; Neuhaus, D.; Rhodes, D.
submitted to the Brookhaven Protein Data Bank, February 1996
A;Reference number: A66200; PDB:INCS
A;Contents: annotation; conformation by (1)H-NMR, residues 532-578
R;Neuhaus, D.; Nakaseko, Y.; Schwabe, J.W.R.; Rhodes, D.; Klug, A.
submitted to the Brookhaven Protein Data Bank, April 1996
A;Reference number: A67819; PDB:IZFD
A;Reference number: A67819; PDB:IZFD
A;Reference number: A67819; PDB:IZFD
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A;Residues: 1-709 <STI>A;Cross-references: EMBL:X06978; NID:g4595; PIDN:CAA30040.1;
A;Cross-references: EMBL:X06978; NID:g4595; PIDN:CAA30040.1;
A;Murphy, L., Richards, C.; Harris, D.
submitted to the EMBL Data Library, July 1995
A;Reference number: S57971
A;Accession: S57973
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   transcription factor SWIS [validated] - yeast (Saccharomyces cerevisiae) N;Alternate names: protein YD8358.03c; protein YDR146c C;Species: Saccharomyces cerevisiae C;Date: 30-Jun-1992 #sequence revision 30-Jun-1992 #text_change 08-Dec-2000 C;Accession: S00342; S57973
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A;Experimental source: strain Clip11262
C;Genetics:
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Science 294, 849-852, 2001
A;Authors: Kreft, J.; Kuhn, M.; Kunst, F.; Kurapkat, G.; Madueno, E.;
A;Authors: Kreft, J.; Kuhn, M.; Tierrez, A.; Vazquez-Boland, J.A.;
ok, C.; Schlueter, T.; Simoes, N.; Tierrez, A.; Vazquez-Boland, J.A.;
A;Title: Comparative genomics of Listeria species.
A;Reference number: AB1077; MUID:21537279; PMID:11679669
A;Accession: AH1449
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C;Date: 27-Nov-2001
C;Accession: AH1449
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EMBO J. 7, 485-494, 1988
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                                             Reference number: A58623; MUID:93085741; PMID:1453468
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d, L.; Dussurget,
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surget, O.;
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tian, K.D.;
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Voss, H.; W
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Fsihi, H.
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C;Superfamily: transcription factor SWI5
C;Keywords: DNA binding; metalloprotein; trans
F;550-574/Region: zinc finger CCHH motif
F;580-604/Region: zinc finger CCHH motif
F;609-332/Region: zinc finger CCHC motif
F;5609-374/Region: zinc finger CCHC motif
F;552,557,570,574/Binding site: zinc (Cys, Cy, F;582,887,600,604/Binding site: zinc (Cys, Cy, F;611,613,626,632/Binding site: zinc (Cys, Cy,
                                                           A;Uro89-references: EMBL:AL049711; GSPDB:GN00061; ATSP:F4F15.320
A;Experimental source: cultivar Columbia; BAC clone F4F15
C;Genetics:
                                                                                                                           A; Molecule type: DNA
A; Residues: 1-371 < ALC>
                                                                                                                                                                                                R;Alcaraz, J.P.; Clabault, G.; Cot
submitted to the Protein Sequence
A;Reference number: ZZ5015
A;Accession: T49100
                                                                                                                                                                                                                                                                                              hypothetical protein F4F15.320 - Arabidopsis thaliana C;Species: Arabidopsis thaliana (mouse-ear cress) C;Species: 02-Jun-2000 #sequence_revision 02-Jun-2000 #text_change 02-Jun-2000
  A; Map position:
A; Introns: 34/3;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C;Superfamily: respiratory syncytial virus major surface glycoprotein C;Keywords: glycoprotein; transmembrane protein F;45-62/Domain: transmembrane #status predicted <TMN> F;3,85,127,149,233,251/Binding site: carbohydrate (Asn) (covalent) #s1
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A;Reference number: A36408; MUID:91012801;
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C;Species: bovine respiratory syncytial virus
C;Date: 31-Mar-1992 #sequence_revision 31-Mar-1992 #text_change 16-Jul-1999
                                           A; Gene: ATSP: F4F15.320
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J. Virol. 64, 5559-5569, 1990
A;Title: Nucleotide sequence analysis and
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A; Cross-references:
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Similarity 53.8%;
7; Conservation
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base, April 2000
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Query Match 55.7%; Score 39; DB 2; Length 371;
Best Local Similarity 50.0%; Pred. No. 34;
Matches 7; Conservative 2; Mismatches 5; Indels 0; Gaps 0;

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Db 233 GPNFVDPRGKLLPR 246

Search completed: January 29, 2003, 13:23:59

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:	re 53; DB id. No. 0.01 Mismatches	ARIT (BY IN M NATE (IN (D9D1	infor te. s lon remov nt (S	eted. poforms; 1/ghre produced by alth essential for modified FAMIL	s EMBL/GenBank/DDBJ databases.  Ind for the growth hormone secr inducing the release of growth appetite-stimulating effect, in s gastric acid secretion. Invo similarity).	D 2)C., Poitras MTLRP/ghrelin	Craniata; Vez Fissipedia;	re update) ion update) secretagogue)	117 AA	ALIGNMENTS	PNECA CAEEL BUCAI BRSV1 BRSV2 BRSV4 CHICK CHICK CHICK CHOMAN DROME
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Trends Endocrinol. Metab. 12:118-122(2001).

-I-FUNCTION: Specific ligand for the growth hormone secretagogue receptor type 1 (GHSR) inducing the release of growth hormone the pituitary. Has an appetite-stimulating effect, induces adiposity and stimulates gastric acid secretion. Involved in growth regulation.

-I-SUBCELLULAR LOCATION: Secreted.
-I-ALTERNATIVE PRODUCTS: 2 isoforms; l/ghrelin (shown here) and 2/des-Gln14-ghrelin; are produced by alternative splicing.
-I-PTM: O-n-octanoylation is essential for activity.
-I-SIMILARITY: BELONGS TO THE MOTILIN FAMILY.
-I-BATABASE: NAME-Atlas Genet. Cytogenet. Oncol. Haematol.;
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Q9UBU3; Q9H3R3;
15-JUN-2002 (Rel
                                            This
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                           between
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Mammalia; Eutheria;
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15-JUN-2002 (Rel. 41, Last annotation update)
Shrelin precursor (Growth hormone secretagogue) (Growth hore releasing peptide) (Motilin-related peptide) (M46 protein)
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                         SWISS-PROT entry is copyright. It is produced through a collaboration een the Swiss Institute of Bioinformatics and the EMBL outstation -
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2006/959; PubMed=10604470;
., Hosoda H., Date Y., Nakazatc
is a growth-hormone-releasing
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Kawai J., Shinagawa A., Shibata K., Yoshino M., Itoh M., Ishii Y., Arzakawa T., Hara A., Fukunishi Y., Konno H., Adachi J., Fukuda S., Arzawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I., Saito T., Okazaki Y., Gojobori T., Bono H., Kasukawa T., Saito R., Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T., Fleischmann W., Gaasterland T., Gissi C., King B., Kochiwa H., Kuehl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush Schriml L.M., Staubli F., Suzuki R., Tomita M., Wagner L., Washio Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barch G., Blake J., Boffelli D., Bojunga N., Carninci P., de Bonaldo M.F.,
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                                                                                                                             STRAIN=C57BL/6J;
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Staub A., Alexander G., Chenard M.-P., F
"Identification and characterization of
hormone: the motilin-related peptide.",
Gastroenterology 119:395-405 (2000).
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REVIEW.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             This SWISS-PROT entry is copyright. It is produced through a collab between the Swiss Institute of Bioinformatics and the EMBL outset the European Bioinformatics Institute. There are no restrictions use by non-profit institutions as long as its content is in modified and this statement is not removed. Usage by and for contention of the statement is not removed.
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EMBL;
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Gustincich S., Hill I
Lyons P., Marchionni
              Ghrelin precursor
                                                                                                                                                                                                                                                                                                                                             SIGNAL
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"Ghrelin: discovery of the natural endogenous
releasing
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ALTERNATIVE PRODUCTS: 2 isoforms; 1/ghrelin (shown here) and 2/des-Gln14-ghrelin; are produced by alternative splicing.
TISSUE SPECIFICITY: Mainly expressed in the gastrointestinal tract with higher levels in the stomach, medium levels in the duodenum, jejunum, ileum and colon. Low expression in the testis and brain. Not detected in the salivary gland, pancreas, liver and lung.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Not detected in the PTM: O-n-octanoylati SIMILARITY: BELONGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    growth regulation.
SUBCELLULAR LOCATION: Secreted.
ALTERNATIVE PRODUCTS: 2 isoform
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            the pituitary. Has an appetite-stimulating effect, induces adiposity and stimulates gastric acid secretion for a growth regulation.
                                                                                                                                                                                     GSSFLSPE----
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one; Cleavage on pai
                                                                                                                                                        GSSFLSPEHQKAQQRKESKKPPAKLQPR
                                                                                                                                                                                                                                                                                                                                                                                                                AJ243503; CAB46500.1; -. AB035701; BAB19046.1; -. AB060078; BAB69857.1; -. AK008658; BAB25814.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                   AK008860; BAB25934.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   e secretagogue receptor.";
Endocrinol. Metab. 12:118-122(2001).
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409:685-690(2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   detected in the salivary gland, pancreas, liver and lung. : O-n-octanoylation is essential for activity (By similarity). ILARITY: BELONGS TO THE MOTILIN FAMILY.
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an email to license@isb-sib.ch).
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 peptide)
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117
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41, Last sequence update)
41, Last annotation updat
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REMOVED IN MATURE FORM (BY SIMILARITY)
N-OCTANOATE (BY SIMILARITY)
MISSING (IN ISOFORM 2).
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             secretagogue)
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"Ghrelin: discovery or convergence.";
hormone secretagogue receptor.";
Trends Endocrinol. Metab. 12:118-122(2001).
-i-FUNCTION: Specific ligand for the growth hormone secretagogue receptor type 1 (GHSR) inducing the release of growth hormone the pituitary. Has an appetite-stimulating effect, induces
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A. (ISOFORMS 1 AND 2), SEQUENCE FROM N.A. (ISOFORMS 1 AND 2), SEQUENCEMENT ON OF SER-26. SPECTROMETRY, AND ACYLATION OF SER-26. STRAIN-Sprague-Dawley, TISSUE-Stomach; MEDLINE-2035/315, PubMed=10801861; MEDLINE-2035/315, PubMed=10801861; MEDLINE-2035/315, PubMed=10801861; MEDLINE-2035/315, PubMed=10801861; Mateuo H., Kangawa Fupurification and characterization of ratendogenous ligand for the growth hormone endogenous ligand for the growth hormone to the pubmed of the growth hormone services of of the grow
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between
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[2]
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Matsumoto M., Hosoda H., Kitajima Y., Morozumi N.,
Tanaka S., Matsuo H., Kojima M., Hayashi Y., Kangaw
"Structure-activity relationship of ghrelin: pharma
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Mammalia; Eutheria;
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"Ghrelin: discovery of the natural
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Hosoda H., Kojima M., Matsuo H., Kangawa
"Ghrelin and des-acyl ghrelin: two major
in gastrointestinal tissue.";
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Kojima M., Hosoda H., Date Y., Nak
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                                                                                                                                                                                                                                                                                                         Growth regulation.

SUBCELIULAR LOCATION: Secreted.

ALTERNATIVE PRODUCTS: 2 isoforms; 1/ghrelin (shown here) and ALTERNATIVE PRODUCTS: 2 isoforms; 1/ghrelin (shown here) and 2/des-Gln14-ghrelin; are produced by alternative splicing.

TISSUE SPECIFICITY: Broadly expressed with higher expression in the stomach. Very low levels are detected in the hypothalamus, the stomach. Very low levels are detected in the hypothalamus, heart, lung, pancreas, intestine and adipose tissue.

PTM: O-n-octanoylation is essential for activity. The replacement of Ser-26 by aromatic tryptophan preserves ghrelin activity.

MASS SPECTROMETRY: MW=3314.9; MW_ERR=0.7; METHOD=Electrospray;
                                                                            B SWISS-PROT entry is copyright. It is produced through a cween the Swiss Institute of Bioinformatics and the EMBL European Bioinformatics Institute. There are no restrict by non-profit institutions as long as its content is by non-profit institutions as long as its content is ified and this statement is not removed. Used by and for the statement is not removed.
                                                                                                                                                                                                                                               RANGE=24-51.
MASS SPECTROMETRY:
RANGE=24-36, 38-51
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                                                              requires a license agreement
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                                        email to license@isb-sib.ch).
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ba; Chordata;
la; Rodentia;
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                                                                                                                                                                                                                            TO THE MOTILIN FAMILY.
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Sciurognathi;
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15-JUN-2002 (Rel. 41, Created)
15-JUN-2002 (Rel. 41, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation updat
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Mammalia; Eutheria;
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                                                                                                                                              Hormone;
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                                                                                                                                                                                                                                                                                                                                                                                                        growth regulation (By similarity).
SUBCELLULAR LOCATION: Secreted (By similarity).
ALTERNATIVE PRODUCTS: 2 isoforms; 1/ghrelin (shown here) and 2/des-Gln14-ghrelin; are produced by alternative splicing.
PTM: O-n-octanoylation is essential for activity (By similarity).
SIMILARITY: BELONGS TO THE MOTILIN FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          mitted (MAR-2001) to the EMBL/GenBank/DDBJ databases.
FUNCTION: Specific ligand for the growth hormone secretagogue receptor type 1 (GHSR) inducing the release of growth hormone the pituitary. Has an appetite-stimulating effect, induces adiposity and stimulates gastric acid secretion. Involved in
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Submitted (JAN-1994) to the EMBL/GenBank/DDBJ databases.
-!- FUNCTION: UNLIKE THE OTHER PARAMYXOVIRUS ATTACHMENT
RESPIRATORY SYNCYTIAL VIRUS G PROTEIN LACKS BOTH NEU
HEMAGGLUTINATING ACTIVITIES.
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15-JUL-1998
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                                                                                                                                              SEQUENCE
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HSSP; P22261; 1BRV.
                                                                                                                                                                                                                                                                                                                                                                                                                                                     or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        entities requires a license agreement
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Paramyxoviridae; Pneumovirinae; Pneumovirus.
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MEDLINE-97170754; PubMed-9018058; ...
MEDLINE-97170754; Langedijk J.P.,
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J. Gen. Virol. 78:359-366(1997)
-I- FUNCTION: UNLIKE THE OTHER PARAMYXOVIRUS ATTACHMENT PROTEINS, TRESPIRATORY SYNCYTIAL VIRUS G PROTEIN LACKS BOTH NEURAMINIDASE HEMAGGLUTINATING ACTIVITIES.
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Bovine respiratory syncytial virus (strain Rb94) (BRS), Bovine respiratory syncytial virus (strain 220-69) (BRS) Viruses, BRNA negative-strand viruses, Mononegavirales, Paramyxoviridae, Pneumovirinae, Pneumovirus.
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C Q9BDG6; Q9GKY6;

C Q9BDG6; Q9GKY6;

DT 15-JUN-2002 (Rel. 41, Created)

DT 15-JUN-2002 (Rel. 41, Last sequence update)

DT 15-JUN-2002 (Rel. 41, Last annotation update)

T Ghrelin precursor (Growth hormone secretagogum of the peptide).
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Furze J., Roberts S., Wertz G., Taylor G.;
"Antigenically distrinct G glycoproteins of BRSV strains share degree of genetic homogeneity.";
Virology 231:48-58(1997).
VIROLOGY 231:48-58(1997).
- FUNCTION: UNLIKE THE OTHER PARAMYXOVIRUS ATTACHMENT PROTEIT RESPIRATORY SYNCYTIAL VIRUS G PROTEIN LACKS BOTH NEURAMINI HEMAGGLUTINATING ACTIVITIES.
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EMBL; Y08720; CAA69970.1; -.
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J. Gen. Virol. 78:359-366(1997).
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Letesson J.J.;
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Chordata; Craniata; Vertebrata; Euteleostomi; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
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SEQUENCE
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Kojima M.
                                                                                                                         pneumoniae."
Nucleic Acid
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                                                                                                                                                                                                                                              SEQUENCE FROM N.A. STRAIN=ATCC 29342
                                                                                                                                                                                                                                                                                                                      Mycoplasma pneumoniae.
Bacteria; Firmicutes; Mollicutes; Mycoplasmataceae; Mycoplasma
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                                      -1- SIMILARITY: BELONGS TO THE S18P FAMILY OF RIBOSOMAL PROTEINS
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-I- FUNCTION: Specifi
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                                                                                                                                                             "Complete sequence analysis of the genome of the bacterium Mycoplasma
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- FUNCTION: This pr
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        adiposity and stimulates gastric acid secretion. growth regulation (By similarity). SUBCELLULAR LOCATION: Secreted (By similarity). PTM: O-n-octanoylation is essential for activity SIMILARITY: BELONGS TO THE MOTILIN FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              nitted (DEC-1999) to the EMBL/GenBank/DDBJ databases. FUNCTION: Specific ligand for the growth hormone secretagogue receptor type 1 (GHSR) inducing the release of growth hormone the pituitary. Has an appetite stimulating effect, induces
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GSSFLSPE-AKLQ
      SWISS-PROT
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and this statement is not removed.
requires a license agreement (See
an email to license@isb-sib.ch).
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Rel. 40, Last annotation update)
protein S18.
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12792
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84.6%;
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Pred. No. 0.95
0; Mismatches
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GHRELIN (BY SIMILARITY).
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RESULT 11
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Best Local (
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   InterPro; IFR001648; Ribosomal S18.

Pfam; PF01084; Ribosomal S18; T.

PRINTS; PR00074; RIBOSOMALS18.

ProDom; PD002239; Ribosomal S18; 1.

TIGRFAMS; TIGR00165; S18; 1.

TIGRFAMS; TIGR00167; RIBOSOMAL S18; FALSE NEG.

PROSITE; PS00057; RNA-binding; Complete pg.

Ribosomal protein; RNA-binding; Complete pg.

Ribosomal protein; RNA-binding; Complete pg.
                                                                                                                                                                                                                                                                              Fraser C.M., Gocayne J.D., White O., Adams M.D., Clayton R.A., Fleischmann R.D., Bult C.J., Kerlavage A.R., Sutton G., Kelley J. Fritchmann J.L., Weidman J.F., Small K.V., Sandusky M., Fuhrmann Nguyen D.T., Utterback T.R., Saudek D.M., Phillips C.A., Merrick Tomb J.-F., Dougherty B.A., Bott K.F., Hu P.-C., Lucier T.S., Peterson S.N., Smith H.O., Hutchison C.A. III, Venter J.C., "The minimal gene complement of Mycoplasma genitalium."; Science 270:397-403(1995).

1- FUNCTION: This protein has been implicated in aminoacyl-tran RNA binding. It appears to be situated at the decoding site messenger RNA (By similarity).

1- SIMILARITY: BELONGS TO THE S18P FAMILY OF RIBOSOMAL PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RS18 MYCGE
P47338;
01-FEB-1996
                                                                                                                                                                           use by non-profit institutions as long modified and this statement is not removed entitles requires a license agreement (See
                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
STRAIN=ATCC 33550 / G-37;
MEDLINE=96026346; PubMed=7569993;
MEDLINE=96026346; PubMed=7.D., White O.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TIGRFAMS; TIGR00165; S18; 1.

PROSITE; PS00057; RIBOSOMAL S18; FALSE NEG.

RIBOSOMAL protein; RNA-bindIng; Complete proteome.

SEQUENCE 104 AA; 12386 MW; 0C424229C79CC1B5 CF
                                                                                                                  EMBL; U39689; AAC71310.1; TIGR; MG092; -.
                                                                                                                                                                                                                      This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the Elthe European Bioinformatics Institute. There are no rest
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the Euro
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Bacteria; Firmicutes; Mollicutes; Mycoplasmataceae; Mycoplasma.
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RPSR OR RPS18 OR MG092.
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16-OCT-2001
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Pfam; PF01084; Ribosomal S18; I.
PRINTS; PR00974; RIBOSOMALS18.
ProDom; PD0022339; Ribosomal S18; 1.
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by non-profit institutions as long as its content
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Kelley J.M.,
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MBL outstation -
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SEQUENCE

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Best Local S
Matches 8
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P08153;
01-AUG-1988
01-AUG-1988
16-OCT-2001
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Q9J552;
16-OCT-2001
16-OCT-2001
16-OCT-2001
SEQUENCE FROM N.A.
MEDILINE-88211561; PubMed-3284746;
Stillman D.J., Bankier A.T., Seddon A
"Characterization of a transcription
specific transcription of the yeast H
EMBO J. 7:485-494(1988).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        This SWISS-PROT entry is copyright. It is produced through a collab between the SWISS Institute of Bioinformatics and the EMBL outst the European Bioinformatics Institute. There are no restrictions use by non-profit institutions as long as its content is in modified and this statement is not removed. Usage by and for contentities requires a license agreement (See http://www.isb-sib.ch/ar
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                                                                                                                                                                                                                                                                 Saccharomyces cerevisiae (Baker's yeast).
Eukaryota; Fungi; Ascomycota; Saccharomycotina; Saccharomycetes;
Saccharomycetales; Saccharomycetaceae; Saccharomyces.
                                                                                                                                                                                                                                                                                                                                                              Transcriptional factor SWI5. SWI5 OR YDR146C OR YD8358.03C.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Afonso C.L., Tulman E.R., Lu Z., Zsak L.,
"The genome of fowlpox virus.";
J. Virol. 74.3815-8831(2000).
-I- SIMILARITY: BELONGS TO THE POXVIRUSES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A. MEDLINE=20193820; PubMed=10729156;
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Viruses; dsDNA viruses,
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8; Conserv
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                                    Seddon A., Groenhout E. cription factor involved e yeast HO gene.";
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DR SGD; S0002553; SMT hook.

DR InterPro; IPR000637; AT hook.

DR InterPro; IPR000632; Znf CCH2.

DR Pfam; PF00096; Zf-C2H2; 3.

DR Pfam; PF00096; Zf-C2H2; 3.

DR Pfam; PF000178; AT hook; 1.

DR PRINTS; PR00048; ZINCFINGER.

DR SMART; SM00384; AT hook; 1.

DR SMART; SM00355; ZnF C2H2; 2.

DR PROSITE; PS00028; ZINC FINGER C2H2 2; 2.

DR PROSITE; PS00157; ZINC FINGER C2H2 2; 2.

OR Transcription regulation; Activator; Zinc-finger; DNA-binding;

GW Repeat; Metal-binding; Nuclear protein; Phosphorylation;

GW 3D-structure.
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SEQUENCE FROM N. A
STRAIN-S288c / AJ
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Neolution structures of two zinc-finger domains from SWI5 obtained using two-dimensional 1H nuclear magnetic resonance spectroscopy. A zinc-finger structure with a third strand of beta-sheet.";

J. Mol. Biol. 228:637-651(1992).

-!- FUNCTION: DETERMINES THE MOTHER-CELL-SPECIFIC TRANSCRIPTION OF HO ENDONUCLEASE GENE THEM FOR THE FOR THE INITIATION OF MATING-TYPE SWITCHING IN YEAST. RECOGNIZES A SPECIFIC SEQUENCE THE PROMOTER OF THE HO GENE. ACTIVATES EGT2 TRANSCRIPTION IN A CONCENTRATION-DEPENDENT MANNER. SYNTHESIZED DURING G2 AND EARLY CONCENTRATION-DEPENDENT MANNER.
                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL; X06978; CAA30040.1; -.
EMBL; Z50046; CAA90369.1; -.
PIR; S00342; TWBYS5.
PDB; 1NCS; 10-JUL-96.
PDB; 1ZFD; 14-OCT-96.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   This SWISS-PROT entry is copyright. It is produced through a collab between the Swiss Institute of Bioinformatics and the EMBL outst the European Bioinformatics Institute. There are no restrictions use by non-profit institutions as long as its content is in modified and this statement is not removed. Usage by and for comentities requires a license agreement (See http://www.isb-sib.ch/an or send an email to license@isb-sib.ch).
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factor SWI5.";
Cell 66:743-758(1991).
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Nagai K., Nakaseko Y., Nasmyth K.A.,
"Zinc-finger motifs expressed in E. «
specific binding to DNA.";
Nature 332:284-286(1988).
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Neuhaus D., Nakaseko Y., Schwabe
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M CELL CYCLE DEPENDENT PHOSPHORYLATION OF THREE SERINE RESIDUPTION OF THREE SERINE RESIDUPTION OF THREE SERINE RESIDUPTION OF THREE SERINE RESIDUPTION OF THREE SERING THE NUCLEUS, AND IT ACCUMULATES IN THE PREVENTS SWIS FROM ENTERS FROM CONCEQUENCE OF COLC28 KINASE INACTIVATION AT THE CYTOPLASM. AS A CONSEQUENCE OF COLC28 KINASE INACTIVATION AT THE END OF ANAPHASE, THE THREE SERINE RESIDUES ARE DEPHOSPHORYLATED AND SWIS ENTERS THE NUCLEUS TO ACTIVATE TRANSCRIPTION. IT IS THE RAPIDLY DEGRADED. THREONINE PHOSPHORYLATION ALSO SEEMS TO OCCUR. SIMILARITY: STRONG, TO YEAST METALLOTHIONEIN EXPRESSION ACTIVATE
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SUBCELLULAR LOCATION: NUCLEAR IN G1,
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128 protein kinase in cell
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RESULT 14
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Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tra
Spermatophyta; Magnoliophyta; eudicotyledons; core eudic
Asteridae; Cornales; Cornaceae; Nyssoideae; Camptotheca.
                                                                                                                                                                                    InterPro; IPR002667; IPP_isomerase.
InterPro; IPR000086; NUDIX_hydrolase.
Pfam; PF00293; NUDIX; 1.
                                                                                                                                                                                                                                                                                                                entities requires a license agreement (S or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                      This SWISS-PROT entry is copyright. It is produced through a converge the Swiss Institute of Bioinformatics and the EMBL between the Swiss Institute of Bioinformatics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 30-MAY-2000 (Rel. 39, Created)
30-MAY-2000 (Rel. 39, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Isopentenyl-diphosphate delta-isomerase II (E
II) (Isopentenyl pyrophosphate isomerase II).
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30-MAY-2000
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PATHWAY: Chl
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C2H2-TYPE.
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BEF5ED5BFB6E30F6 CRC64;
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                                                                                                                              Photosynthesis;
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RESULT 15
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01-AUG-1991 (Rel. 1
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                                                                                                                                                                                                                                                                                                                                                                                        bovine respiratory syncytial virus.";

Biochemistry 35:14684-14688 (1996).

-i- FUNCTION: UNLIKE THE OTHER PARAMYXOVIRUS ATTACHMENT EN RESPIRATORY SYNCYTIAL VIRUS G PROTEIN LACKS BOTH NEURI-HEMAGGLUTINATING ACTIVITIES.

-i- SUBCELLULAR LOCATION: EXPRESSED ON THE SURFACE OF THE CELLS AND INCORPORATED IN THE MEMBRANE OF THE VIRIONS.

-i- SUBCELLIARITY: TO THE G PROTEINS OF EITHER THE SUBGROUP I
 SEQUENCE
                                                                                                                                                  Transmembrane;
                                                                                                                                                                                            EMBL; M58307; AAA42
PIR; A36408; MGNZBR
PDB; 1BRV; 05-JUN-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     syncytial virus is distinct from virus.";
                                                                                                                                                                   Pfam; PF00802;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Doreleijers J.F., Langedijk J.P.M., Haard I
Rullmann J.A., Schaaper W.M., van Oirschot
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE=97098087; PubMed=8942628;
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"Nucleotide sequence analysis and
demonstrate that the attachment pr
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Viruses; ssRNA negative-strand viruses; Mononegavirales;
Paramyxoviridae; Pneumovirinae; Pneumovirus.
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                  MGNZBR.

os. JUN-97.

o; IPR000925; Glycoprotein_G.

rane; Glycoprotein; 3.

rane; Glycoprotein; 3.

for 257 EXTR

for 257 EXTR

for 182 N-LINKL

133 366

76 182 N-LINKL

233 37.
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Wertz G.W.;
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28569
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rt region (
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Oy 6 SPEAKLOPR 14	<pre>Query Match</pre>	
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1: sp_archea:*
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Gapop 10.0 ,
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sp_mammal:*
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P893178 bovine resp
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Q9ynf8 bovine resp
Q9ynf6 bovine resp
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Q9ynf4 bovine resp
Q9ynf25 bovine resp
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459	406	322	226	187	108	103	681	1336	1335	991	558	558	532	532	473	469	435	371	251	188	1078	680	470	343	343	308	256	252
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æ	a	O45024 branchiosto	Q9rt86 deinococcus	Q970u3 sulfolobus		~	O81436 arabidopsis	Q9es55 mus musculu	Q8vil7 mus musculu	irosc	Q9rlwl mus musculu	Q9wt15 mus musculu	Q9wtl6 mue musculu	mus muscu	yers	Q9cs26 mus musculu	mus	Q9suy4 arabidopsis		Q92kn0 rhizobium m	Q9ndy3 leishmania	Q921g6 mus musculu	. ^	Q8yam9 listeria mo			Q9s0a7 borrelia bu	P70866 borrelia bu

## ALIGNMENTS

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RESULT
P89309
ID P8
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Q8TAT9
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Best Local 9
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                                       P89309;
P89309;
01-MAY-1997
01-MAY-1997
01-MAR-2002
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QSTAT9;
01-JUN-2002
01-JUN-2002
01-JUN-2002
                                                                                                                                                                                                                                                                              Strausberg R.;
Submitted (MAR-2002) to the EMBL/GenBank/DDBJ databases.
EMBL; BC055791; AAH25791.1; -.
SEQUENCE 117 AA; 12929 MW; 25B0572EBECB7610 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens (Human)
Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                   NCBI_TaxID=9606; [1]
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Bovine respiratory syncytial virus
                          Attachment glycoprotein
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                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
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|SSFLSPEHQRVQQRKESKKPPAKLQPR
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14; Conservat
           (TrEMBLrel. 03, Created)
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(TrEMBLrel. 20, Last annotation update)
rlycoprotein (Fragment).
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                                                                                                PRELIMINARY;
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Primates;
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50.0%;
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                                                                                                251 AA.
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Best Local S
Matches 8
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J. Gen. Virol. 78:359-366 (1997)
EMBL; U24714; AAC56941.1;
HSSP; P22261; 1BRV
                                                                                                                                               SEQUENCE
                                                                                                                                                              InterPro; IPR000925; Glycoprot G.
InterPro; IPR003880; Ppantne attach.
Pfam; PP00802; Glycoprotein G; 1.
PROSITE; PS00012; PHOSPHOPANTETHEINE; UNKNOWN_1.
                                                                                                                                                                                                                                                                                         MEDLINE=97170754; PubMed=9018058;
                                                                                                                                                                                                                                                                                                                                              Bovine respiratory syncytial virus.
Viruses; 88RNA negative-strand viruses; Mononegavirales;
Paramyxoviridae; Pneumovirinae; Pneumovirus.
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                                                                                                                                                                                                                                                                      Prozzi D., Walravens
Letesson J.J.;
                                                                                                                                                                                                                                                                                                          STRAIN-MVR553
                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
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01-MAY-1997 (TrEMBLrel.
01-MAR-2002 (TrEMBLrel.
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                                                                                                                                                                                                                                                                                                                                       NCBI_TaxID=11246;
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InterPro; IPR003880; Ppantne_attach.
Pfam; PF00802; Glycoprotein G; 1.
PROSITE; PS000012; PHOSPHOPANTETHEINE; UNKNOWN_1.
NON TER 1
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SEQUENCE 251 AA; 27467 MW; CED605DD49103DC3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             "Antigenic and molecular analyses of the variability of bovine respiratory syncytial virus G glycoprotein."; J. Gen. Virol. 78:359-366(1997).

EMBL; U24713; AAC56940.1; -
HSSP; P22261; 1BRV.
                                                                                                                                                                                                                                                                                                                                                                                            Attachment glycoprotein
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Letesson J.J.;
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                                                                                                   Similarity
8; Conserv
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                                                                                                                                                251 AA;
 PRELIMINARY;
                                                                                                  Conservative
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                                                        226
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ens K., Langedijk
                                                                                                                                             27680 MW;
                                                                                                           61.4%;
88.9%;
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n (Fragment).
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Pred. No. 5.6;
1; Mismatches
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Pred. No. 5.6;
1; Mismatches 0
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RESULT
Q99NF9
ID Q9
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DT 011
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CC Vi
GN G.
OC Vi
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Best Local (
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Q9YNF9;
01-MAY-1999
01-MAY-1999
01-MAR-2002
                                                                                           InterPro; IPR000925; Glycoprot G.
InterPro; IPR003880; Ppantne attach.
Pfam; PF00802; Glycoprotein G; I
PROSITE; PS00012; PHOSPHOPANTETHEINE; UNKNOWN 1.
SEQUENCE 257 AA; 28288 MW; C3106210BACA2817
                                                                                                                                                                                                                                                 Larsen L.E. Uttenthal A., Arctander P., Tjornehoj K., Viuff B., Rontved C., Ronsholt L., Alexandersen S., Blixenkrone-Moller M.; "Serological and genetic characterization of bovine respiratory syncytial virus (BRSV) indicates that Danish isolates belong to the intermediate subgroup: no evidence of a selective effect on the variability of G protein nucleotide sequence by prior cell culture adaption and passages in cell culture or calves.";

Vet. Microbiol. 62:265-279(1998).
                                                                                                                                                                                                              Vet. Microbiol. 62:265-279(1
EMBL; U92098; AAD00710.1; -.
HSSP; P22261; IBRV.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Bovine respiratory syncytial virus.
Viruses; ssRNA negative-strand viruses; Mononegavirales;
Paramyxoviridae; Pneumovirinae; Pneumovirus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Paramyxoviridae;
NCBI_TaxID=11246;
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InterPro; IPR003880; Ppantne_attach.
Pfam; PF00802; Glycoprotein_G; 1.
PROSITE; PS00012; PHOSPHOPANTETHEINE; UNKNOWN_1.
NON TER 1
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SEQUENCE 251 AA; 27643 MW; 7786571D0EFF9D51
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EMBL; UZ4715; AAC556942.1; -.
HSSP; P22261; 1BRV.
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Prozzi D., Walravens
Letesson J.J.;
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Viruses; ssRNA negative-strand viruses; Mononegavirales;
Paramyxoviridae; Pneumovirinae; Pneumovirus.
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01-MAY-1997 (TrEMBLrel.
01-MAY-1997 (TrEMBLrel.
01-MAR-2002 (TrEMBLrel.
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            Similarity
8; Conserv
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ens K., Langedijk J.P.,
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01-MAY-1999
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EMBL; U92100, AAD00712.1; -.
                             Larsen L.B., Uttenthal A., Arctander P., Tjornehoj K., Viuff B., Rontved C., Ronsholt L., Alexandersen S., Blixenkrone-Moller M.; "Serological and genetic characterization of bovine respiratory syncytial virus (BRSV) indicates that Danish isolates belong to intermediate subgroup: no evidence of a selective effect on the variability of G protein nucleotide sequence by prior cell cultus adaption and passages in cell culture or calves.";
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InterPro; IPR003880; Ppantne attach.
Pfam; PP00802; Glycoprotein G; 1.
PROSITE; PS00012; PHOSPHOPANTETHEINE; UNKNOWN 1.
SEQUENCE 257 AA; 28324 MW; 94EE8BBC358739BB CRC64;
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Viruses; asRNA negative-strand viruses; Mononegavirales;
Paramyxoviridae; Pneumovirinae; Pneumovirus.
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Viruses; ssRNA negative-strand viruses; Mononegavirales;
Paramyxoviridae; Pneumovirinae; Pneumovirus.
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Q9YNF6;
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EMBL; U92102; AAD00714.1; -.
Paramyxoviridae; Pneumovirinae; Pneumovirus NCBI_TaxID=11246;
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InterPro; IPR003880; Ppantne attach.
Pfam; PF00802; Glycoprotein G; 1.
PROSITE; PS00012; PHOSPHODANTETHEINE; UNKNOWN 1.
SEQUENCE 257 AA; 28380 MW; 6BD146B3B02E5ACB CRC64;
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Viruses; ssRNA negative-strand viruses; Mononegavirales;
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InterPro; IPR003880; Ppantne attach.
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Viruses; ssRNA negative-strand viruses; Monc
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EMBL; U92104; AAD00716.1; -.
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HSSP; P22261; 1BKV.
InterPro; IPR000925; Glycoprot G.
InterPro; IPR003880; Ppantne attach.
InterPro; IPR003880; Ppantne attach.
Pfam; PPR09802; Glycoprotein G; 1
Pfam; PF09802; PHOSPHOPANTETHEINE; UNKNOWN 1.
PROSITE; PS00012; PHOSPHOPANTETHEINE; UNKNOWN 1.
PROSITE; PS00012; PHOSPHOPANTETHEINE; UNKNOWN 1.
                                                                                                                                                                                              InterPro; IPR000925; Glycoprot G.
InterPro; IPR003880; Ppantne attach.
Pfam; PF00802; Glycoprotein G; 1.
PROSITE; PS00012; PHOSPHODANTETHEINE; UNKNOWN 1.
SEQUENCE 257 AA; 28379 MW; C1AZD366EC1657TE CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A. STRAIN=9402022;
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Viruses; seRNA negative-strand viruses; Mononegavirales;
Paramyxoviridae; Pneumovirinae; Pneumovirus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q9YNF4;
01-MAY-1999 (TrEMBLrel.
01-MAY-1999 (TrEMBLrel.
01-MAR-2002 (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE=99008085; PubMed=9791873;
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EMBL, U92103; AAD00715.1; -.

HSSP; P22261; 1BRV.
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STRAIN=9402
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88.9%;
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Pred. No. 5.7;
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CR Rhabd
OX RHabd
OX RHB
RP SEQUE
RA Lloyd
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Best Local
                                                                                                                Q9XUV5;
Q9XUV5;
01-NOV-1999
01-NOV-1999
01-DEC-2001
 SEQUENCE FR
Lloyd C.R.;
                                   Rhabditidae; Pel
NCBI_TaxID=6239;
                                                               Caenorhabditis elegans.
Eukaryota; Metazoa; Nem
                                                                                                                                                                                                                                                                                                                                                                                                     SPECIES-Bovine respiratory syncytial virus (strain A51908) Yunus A.S., Khattar S.K., Collins P.L., Samal S.K., Submitted (AUG-2000) to the EMBL/GenBank/DDBJ databases. EMBL; AF092942; AAC96307.1; -. EMBL; AF295543; AAL49398.1; -. EMBL; P22261; IBRV.
                                                                                                     K02E2.7 protein.
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InterPro; IPR003880; Ppantne attach.
Pfam; PF00802; Glycoprotein G; 1.
PROSITE; PS00012; PHOSPHOPANTETHEINE;
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"Generation of bovine respiratory syncytial virus (BRSV) f

"Generation of bovine respiratory syncytial virus (BRSV) f

BRSV NS2 is not essential for virus replication in tissue

"he human RRV leader region acts as a functional BRSV geno
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SPECIES-Bovine respiratory syncytial virus MEDLINE-21580793; PubMed-11724268; Yunus A.S., Khattar S.K., Collins P.L., Sam "Rescue of bovine respiratory syncytial vir genome sequence of BRSV strain A51908."; Virus Genes 23:157-164(2001).
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SPECIES=Bovine respiratory syncytial virus; STRAIN=ATUE51908; Buchholz U.J., Finke S., Conzelmann K.-K.; Submitted (SEP-1998) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SPECIES-Bovine respiratory syncytial virus; STRAIN-ATUE51908; MEDLINE-99102581; PubMed-9847328; Buchholz U.J., Finke S., Conzelmann K.K.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Bovine respiratory syncytial virus, and
Bovine respiratory syncytial virus (strain A51908) (BRS)
Viruses; ssRNA negative-strand viruses; Mononegavirales;
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01-MAY-1999 (TrEMBLrel.
01-JUN-2002 (TrEMBLrel.
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                                                Peloderinae;
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                                                            Nematoda; Chromadorea;
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RA Arakawa K., Izawa M., Nishi K., Kiyosawa H., Kando S., Yamanaka I.,

RA Altawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,

RA Altawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,

RA Salto T., Okazaki Y., Gojobori T., Bono H., Kasukawa T., Saito R.,

RA Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,

RA Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,

RA Kuehl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,

RA Schriml L.M., Staubli F., Suzuki R., Tomita M., Wagner L., Washio T.,

RA Schriml L.M., Staubli F., Suzuki R., Tomita M., Wagner L., Washio T.,

RA Schriml L.M., Staubli F., Suzuki R., Tomita M., Wagner L.,

RA Schriml L.M., Staubli F., Suzuki R., Tomita M., Washio T.,

RA Schriml L.M., Staubli F., Suzuki R., Tomita M., Wagner L.,

RA Schriml L.M., Staubli F., Suzuki R., Tomita M., Washio T.,

RA Schriml L.M., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,

RA Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,

RA Blake J., Boffelli D., Bojunga N., Carninci P., de Bonaldo M.F.,

RA Brownstein M.J., Bult C., Fletcher C., Fujita M., Gariboldi M.,

RA Gustincich S., Hill D., Hofmann M., Hume D.A., Kamiya M., Lee N.H.,

RA Lyons P., Marchionni L., Mashina J., Mazzarelli J., Mombaerts P.,

RA Sasaki H., Sato K., Schoenbach C., Seya T., Shibata Y., Storch K.-F.,

RA Sauki H., Toyo-oka K., Wang K.H., Weitz C., Whittaker C., Wilming L.,

RA Mynshaw-Boris A., Yoshida K., Hasegawa Y., Kawaji H., Kohtsuki S.,

RA Mynshaw-Boris A., Yoshida K., Hasegawa Y., Kawaji H., Kohtsuki S.,
Query Match
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Matches
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investigating biology.,
Science 282:2012-2018(1998).
SCHENCE 281560; CAB04544.1; -.
EMBL; Z81560; CAB04544.1; 19025 MW;
                                                                                                                                                            PRINTS; PR00401; SH2DOMAIN
PRODOM; PD000093; SH2; 1.
SMART; SM00462; PTB; 1.
SMART; SM00052; SH2; 1.
PROSITE; PS50001; SH2; 1.
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STRAIN=C57BL/6J; TISSUE=LUNG;
MEDLINE=21085660; PubMed=11217851;
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Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-JUN-2001 (TrEMBLrel.
01-MAR-2002 (TrEMBLrel.
1200014E20Rik protein.
                                                                                                                                                                                                                                                                                    MGD; MGI:104552; Tns.
InterPro; IPR0009050; PID domain.
InterPro; IPR000980; SH2.
Pfam; PF00017; SH2; 1.
PRINTS; PR00401; SH2DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "Functional annotation of a full-length mouse cDNA collection."; Nature 409:685-690(2001).
EMBL; AK004758; BAB23539.1; -.
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01-JUN-2001
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                                                                                                                                     SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          13
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                                                                                                                                                                                                                                                                                                                                                                                                                                                    P16277; 1BLK
   Similarity
8; Conserv
58.6%;
nilarity 61.5%;
Conservative :
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                                                                                                                              624 AA;
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                                                                                                                                  65369 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              58.6%;
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Score 41; DB 1
Pred. No. 36;
2; Mismatches
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Pred. No. 8.4;
2; Mismatches
   <u>ب</u>
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                                                                                                                                  296FC3741EFBC57E CRC64;
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                                                            Length 624;
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Gaps
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Best Local S
Matches 8
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Q98F99;
01-OCT-2001
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01-NOV-1996
01-NOV-1996
                                                                                                                                                                                         STRAIN=MARF303099;
MEDLINE=21082930; PubMed=11214968;
MEDLINE=21082930; PubMed=11214968;
Kaneko T., Nakamura Y., Sato S., Asamizu E., Kato T., Sasa
Watanabe A., Idesawa K., Ishikawa A., Kawashima K., Kimura
Watanabe A., Kiyokawa C., Kohara M., Matsumoto M., Matsumo
Mochizuki Y., Nakayama S., Nakazaki N., Shimpo S., Sugimot
Takeuchi C., Yamada M., Tabata S.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Flannagan S.B., Zitzow L.A., Su Y.A., Clewell "Nucleotide sequence of the 18-kb conjugative Enterococcus faecalis.", Plasmid 32.350-354(1994).
EMBL; U09422; AAB60017.1; -. SEQUENCE 815 AA; 93317 MW; 594C6A5F4FC59E6
                                                                                                     EMBL; AP003002; BAB50668.1;
Hypothetical protein; Comple
SEQUENCE 96 AA; 10602 MW;
                                                                                                                                                                                                                                                                                                                                                                                        Hypothetical MSR3871.
                                                                                                                                                                                                                                                                                                                                                                          Rhizobium loti (Mesorhizobium loti)
                                                                                                                                                                                                                                                                                                                                                                                                                       01-MAR-2002
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MEDLINE=95207419; PubMed=7899523;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NCBI_TaxID=1351;
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                                                                                                                                                Mesorhizobium loti.";
DNA Res. 7:331-338(2000).
                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                           Phyllobacteriaceae;
                                                                                                                                                                                                                                                                                                                                                            Bacteria; Proteobacteria;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Enterococcaceae; Enterococcus.
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                                                                                                                                                                              "Complete genome structure
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                                                          Local
1 GSSFLSPEAKLQ
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8; Conserv
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(TrIMBLel. 20, Last annotation
protein msr3871.
                                            Conservative
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                                                                                                       protein; Complete
5 AA; 10602 MW; 5
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                                                                                                                                                                                                                                                                                                                                              Mesorhizobium
                                                         57.1%;
66.7%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (Streptococcus faecalis).
Bacillus/Clostridium group; Lactobacillales;
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14,
                                                                                                                                                                                                                                                                                                                                                          alpha subdivision; Rhizobiaceae group;
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Pred. No. 48;
1; Mismatches
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the nitrogen-fixing
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ima K., Kimura
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